



# Appendix for Testreport

## Appendix A: DTS (6 dB) Bandwidth

In this document, the "DTS6dBBW" refers to the measured "DTS (6 dB) Bandwidth" value. In this Appendix, the "fc(DTS6dBBW)" refers to the centre of the measured "DTS6dBBW". The introduction of the "fc(DTS6dBBW)" is due to that other measurements use it as the spectrum analyzer setting.

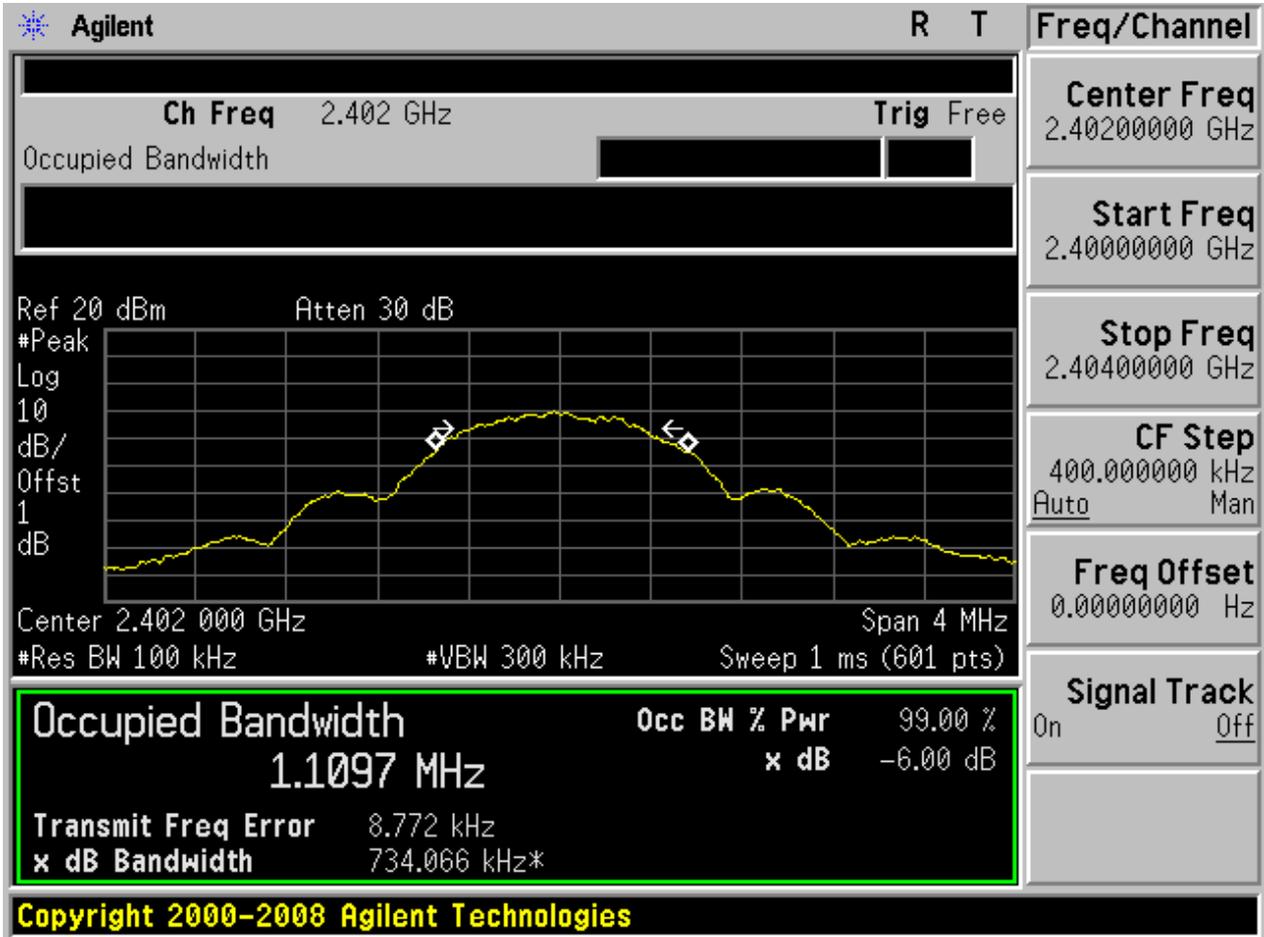
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	DTS6dBBW[MHz]	Verdict
TM1_Ch0	L	2402	0.73	pass
TM1_Ch19	M	2440	0.65	pass
TM1_Ch39	H	2480	0.7	pass

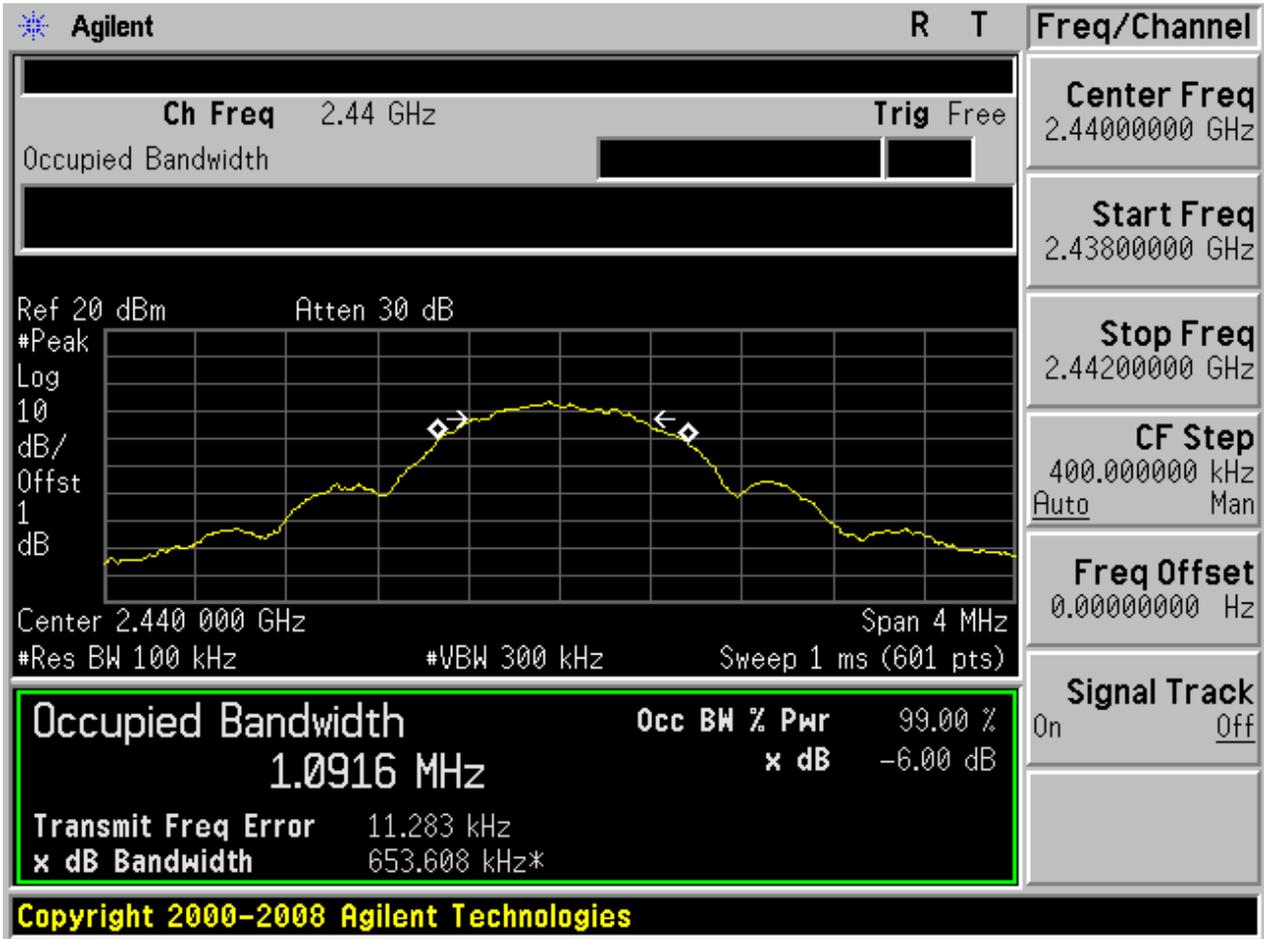
Part II - Test Plots

2.1 TM1\_Ch0\_L



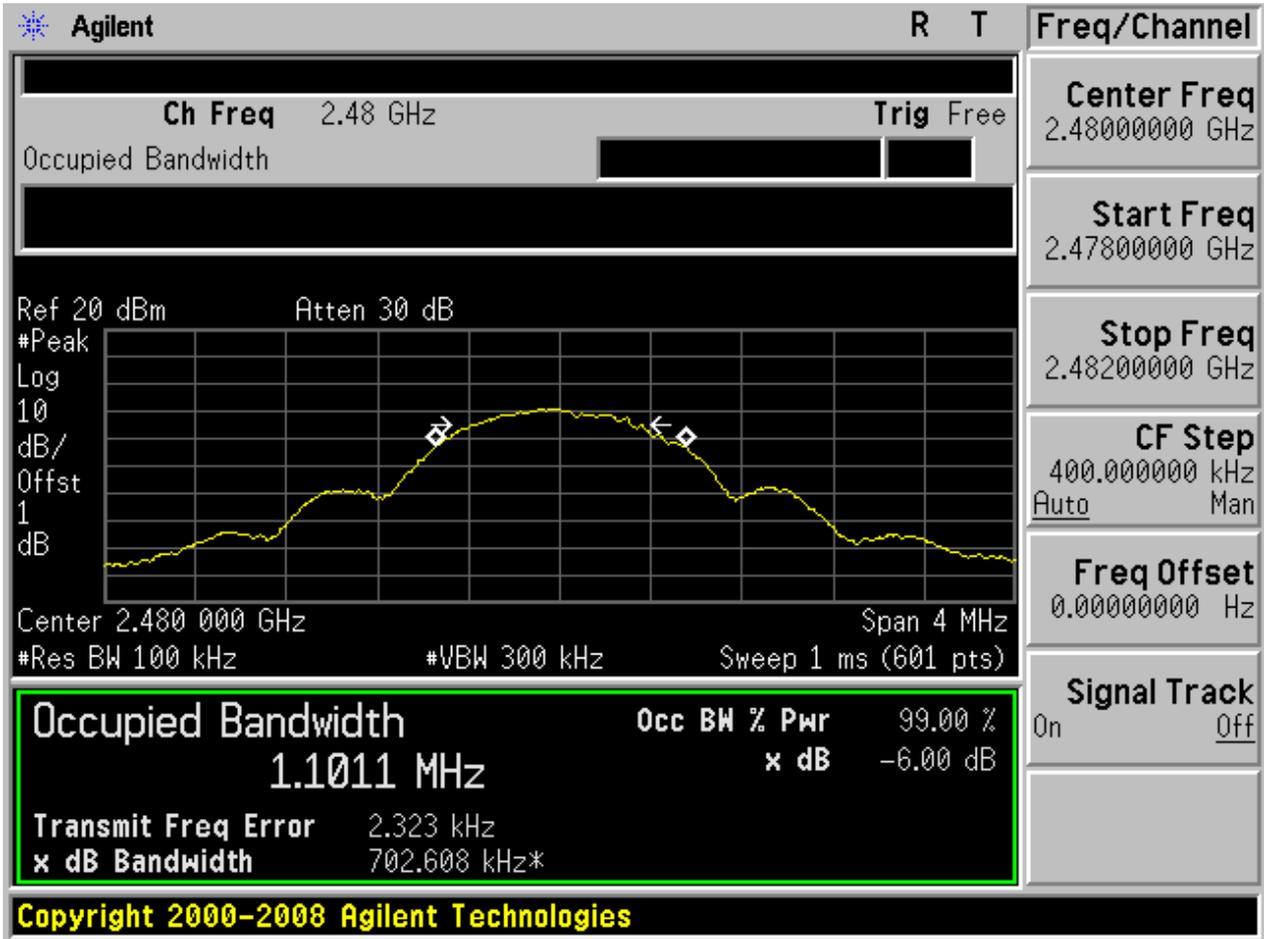


2.2 TM1\_Ch19\_M





2.3 TM1\_Ch39\_H





## Appendix B: Occupied Bandwidth

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

### Part I - Test Results

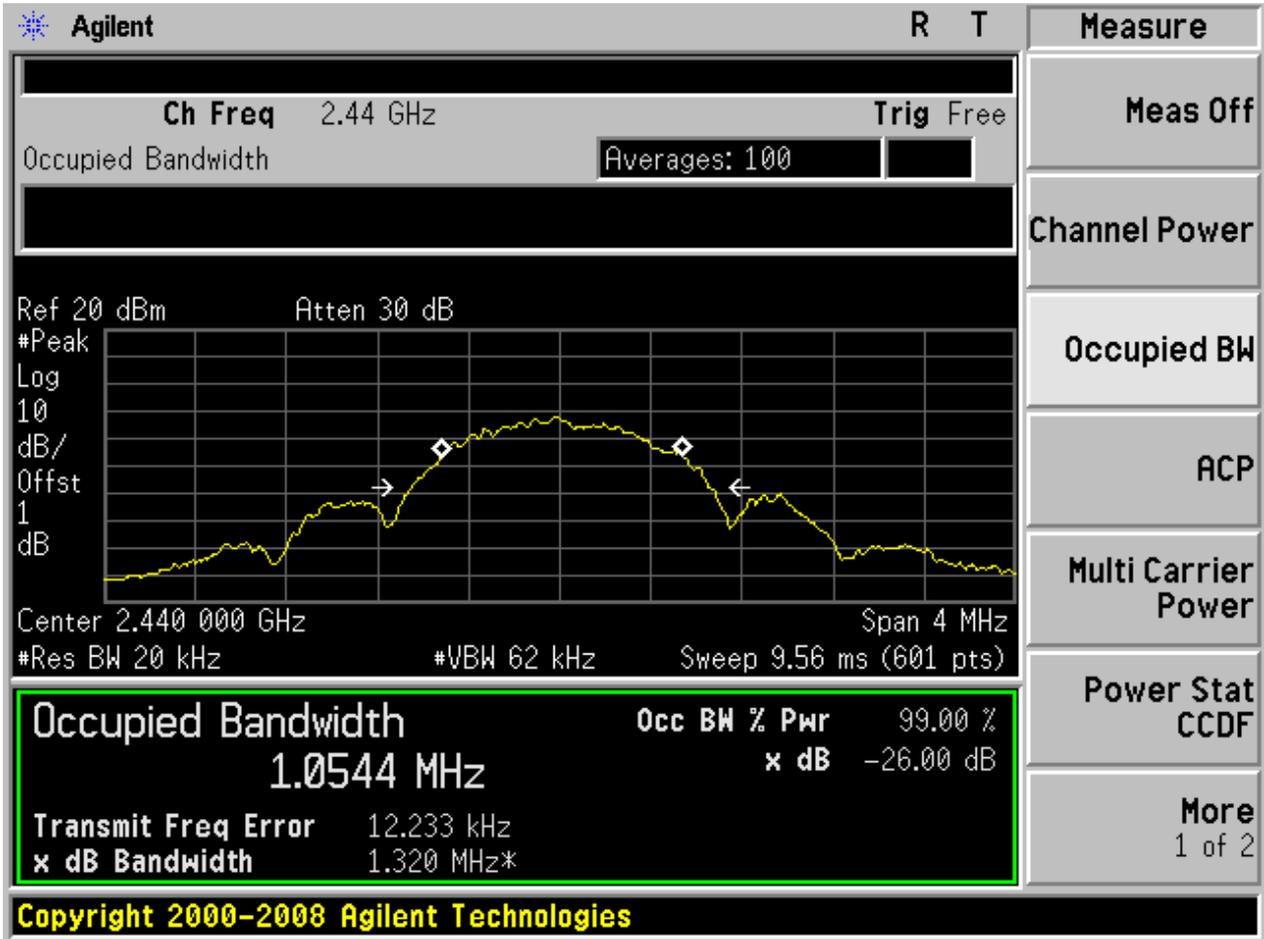
Test Mode	Test Channel	Frequency[MHz]	Occupied Bandwidth [MHz]	Verdict
TM1_Ch0	L	2402	1.07	pass
TM1_Ch19	M	2440	1.05	pass
TM1_Ch39	H	2480	1.06	pass

Part II - Test Plots

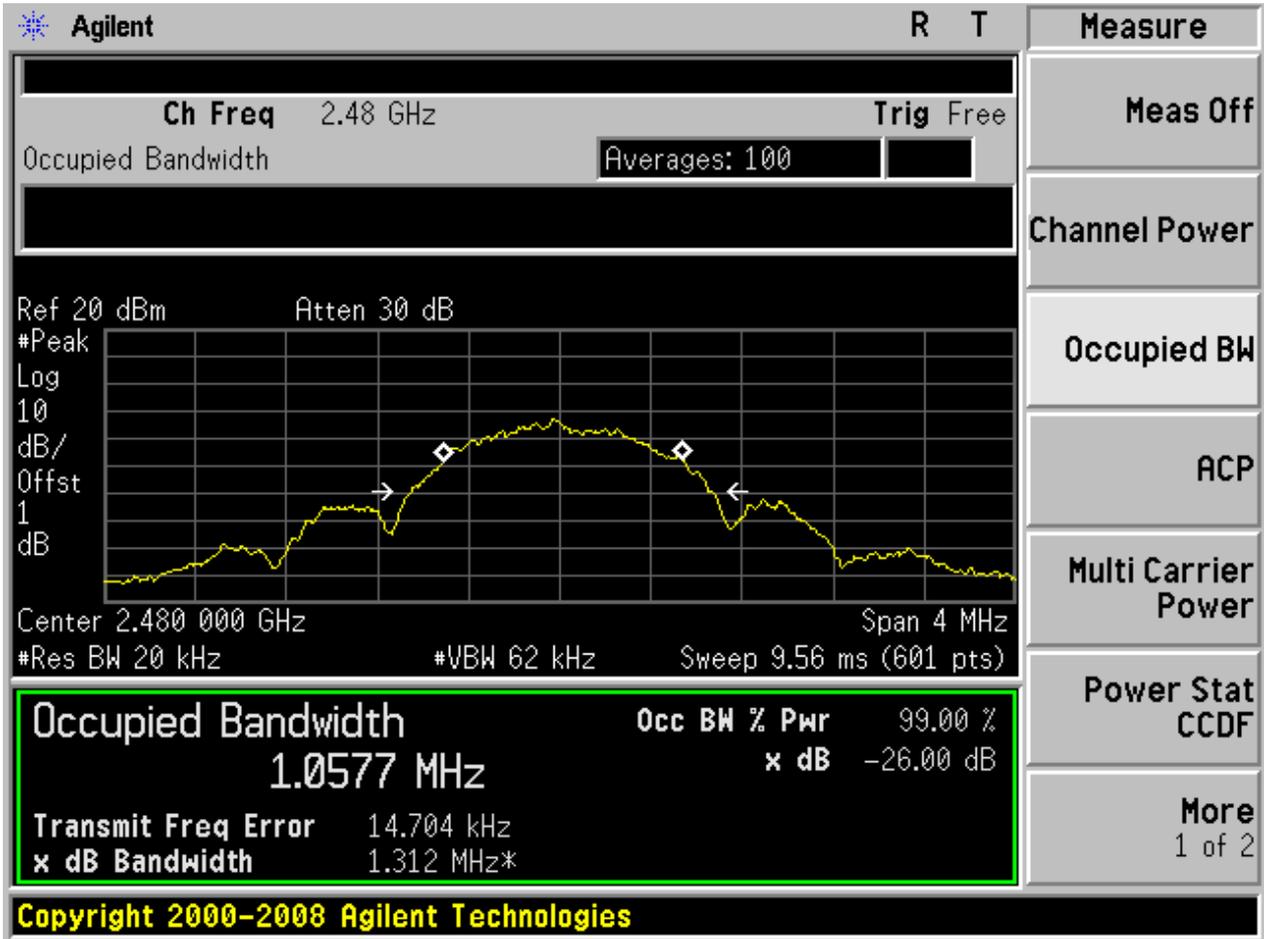
2.1 TM1\_Ch0\_L



2.2 TM1\_Ch19\_M



2.3 TM1\_Ch39\_H



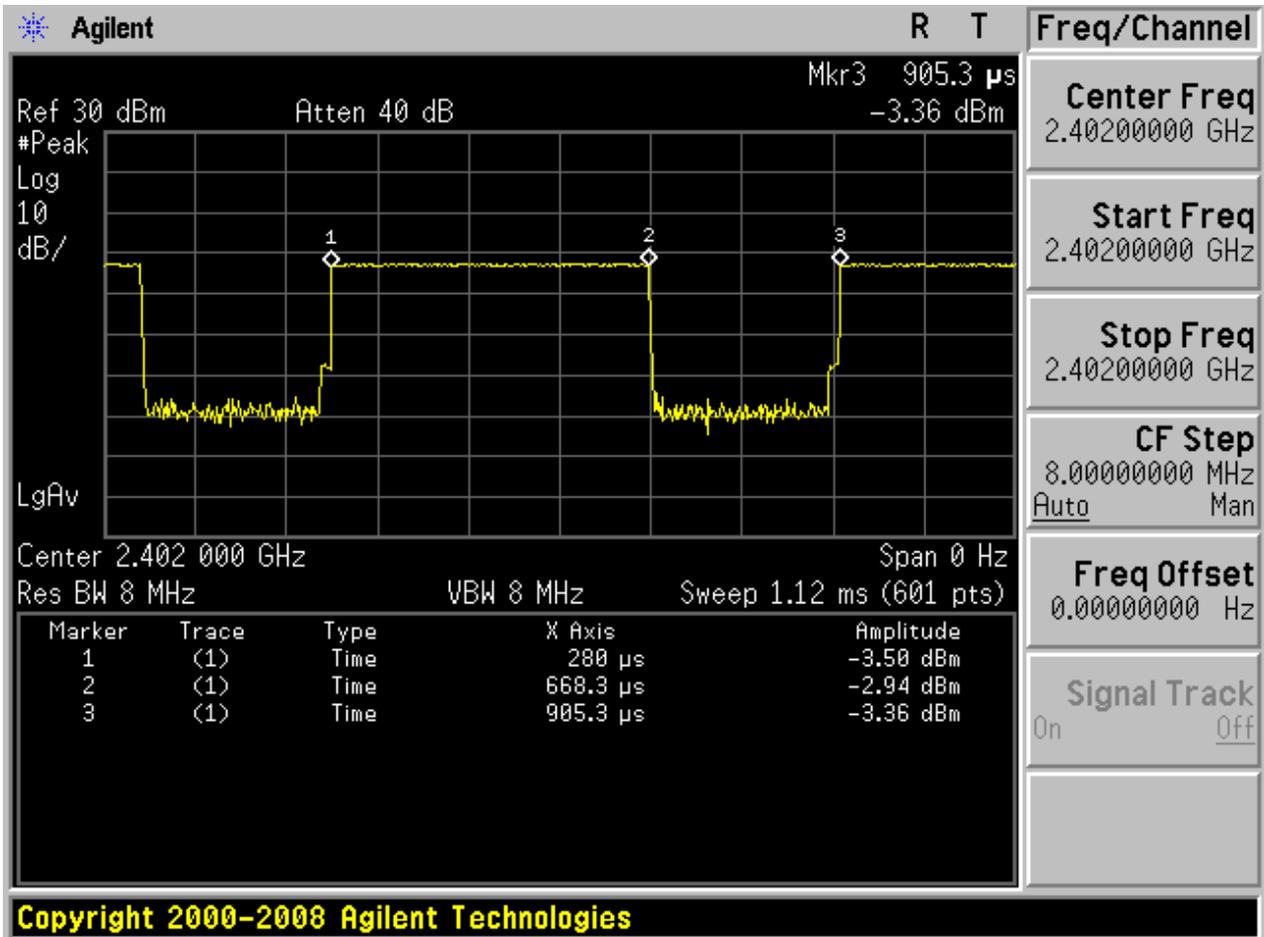
## Appendix C: Duty Cycle

### Part I - Test Results

Test Mode	TX Freq. [MHz]	Duty cycle [%]
TM1	CH0,CH19,CH39	62

### Part II - Test Plots

#### 2.1 TM1





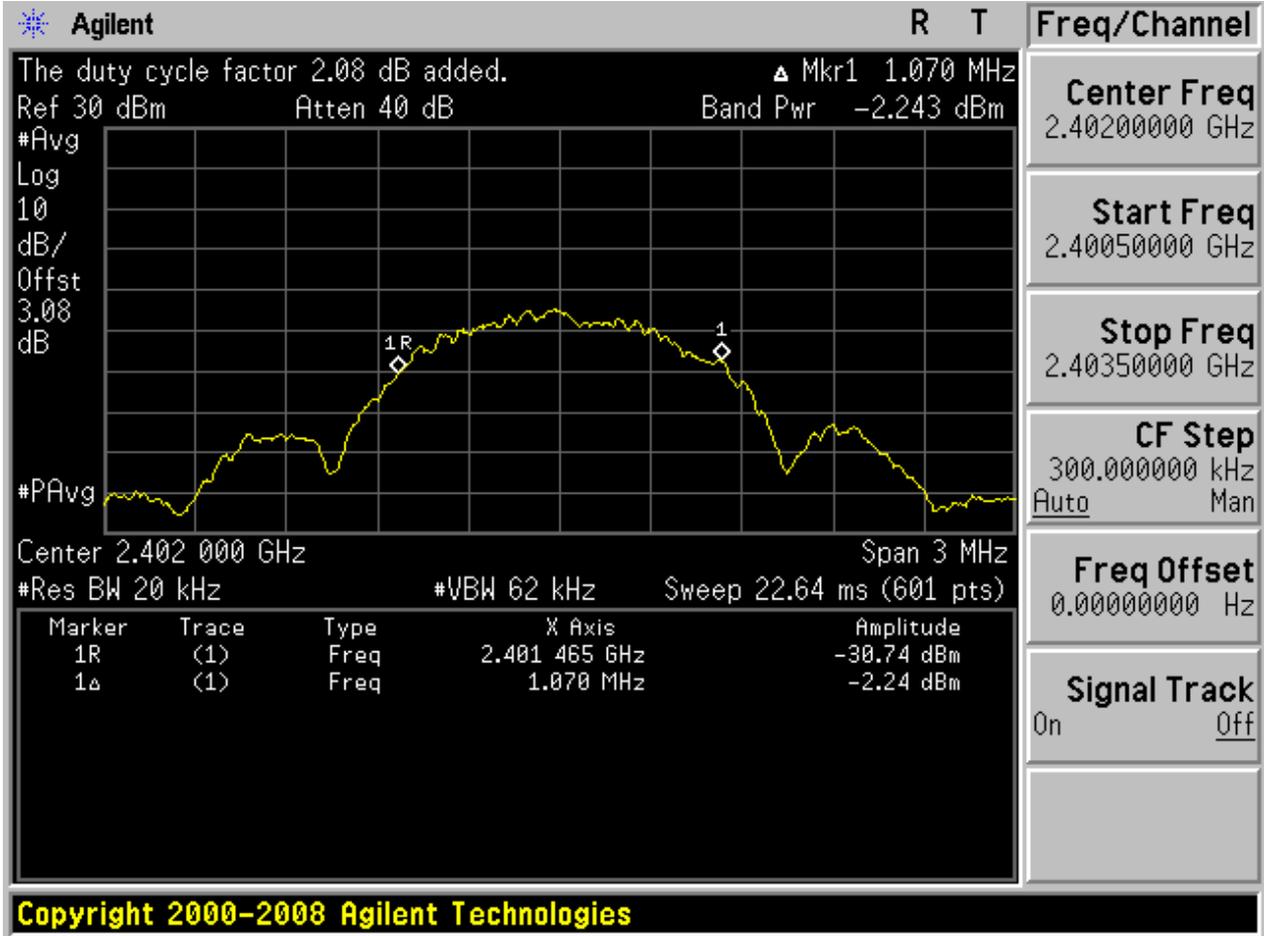
## Appendix D: Maximum Conducted Average Output Power

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	Power[dBm]	Verdict
TM1_Ch0	L	2402	62	-2.24	pass
TM1_Ch19	M	2440	62	0.45	pass
TM1_Ch39	H	2480	62	-1.26	pass

**Part II - Test Plots**

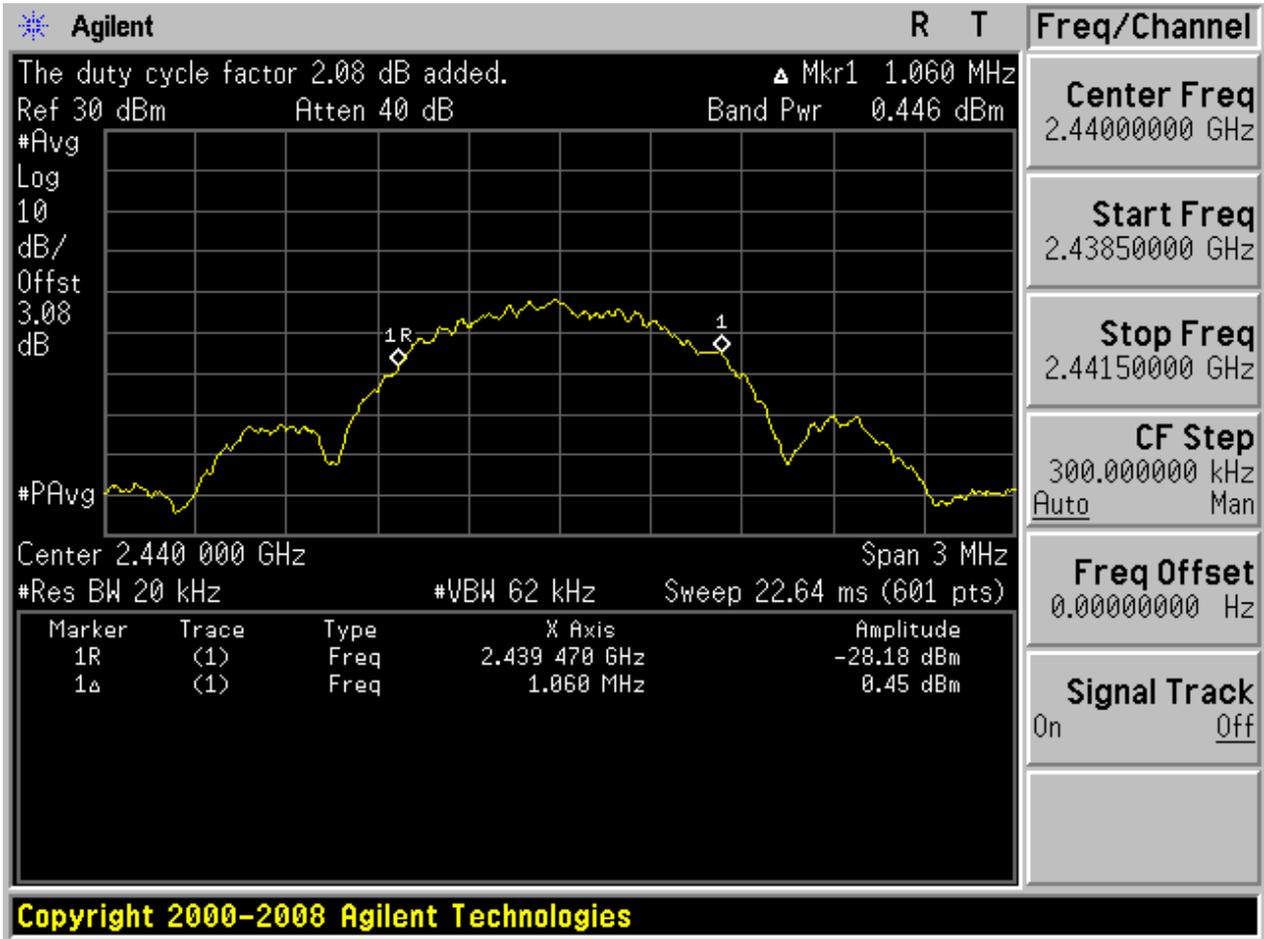
**2.1 TM1\_Ch0\_L**



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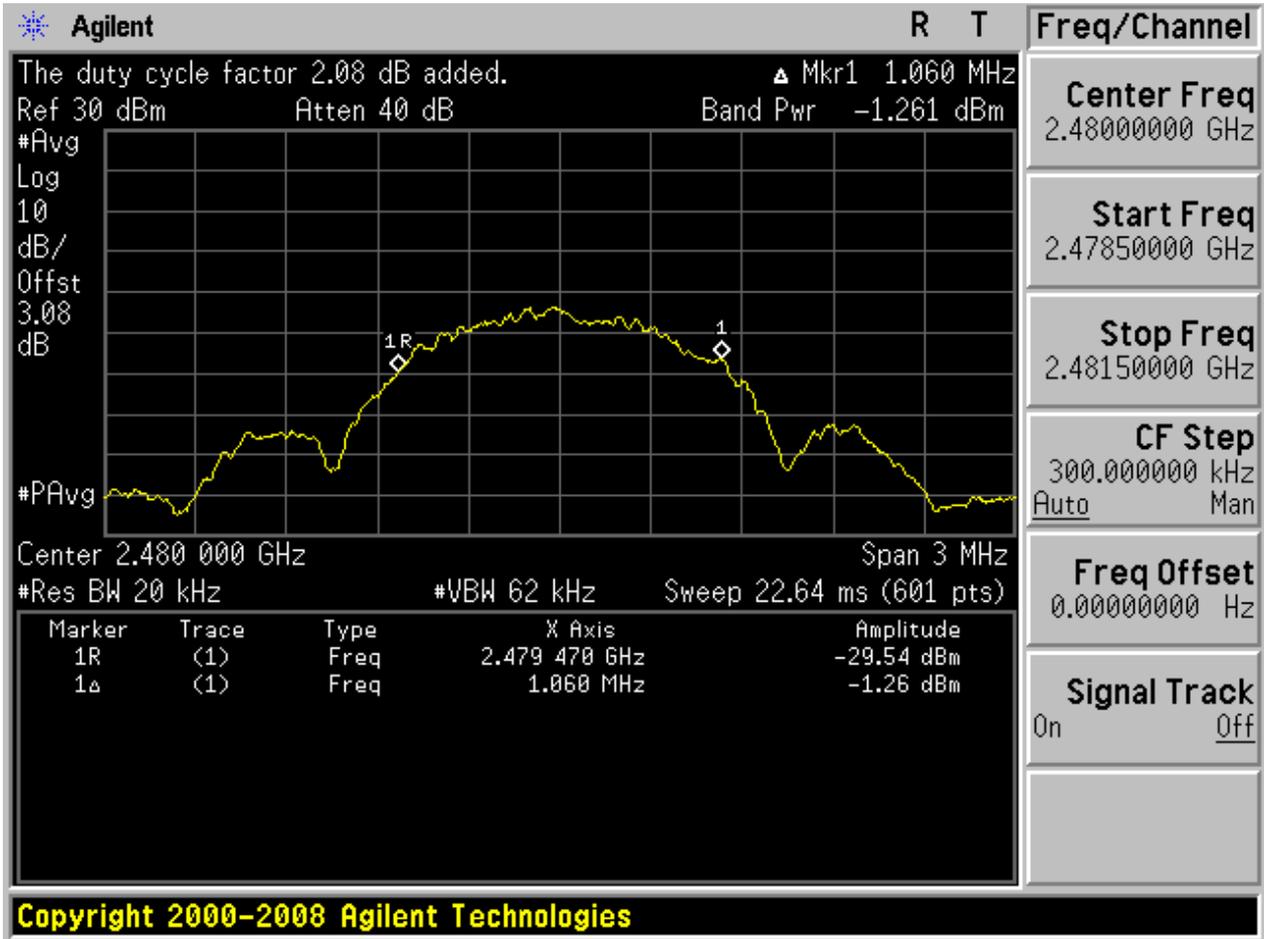
2.2 TM1\_Ch19\_M



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2.3 TM1\_Ch39\_H



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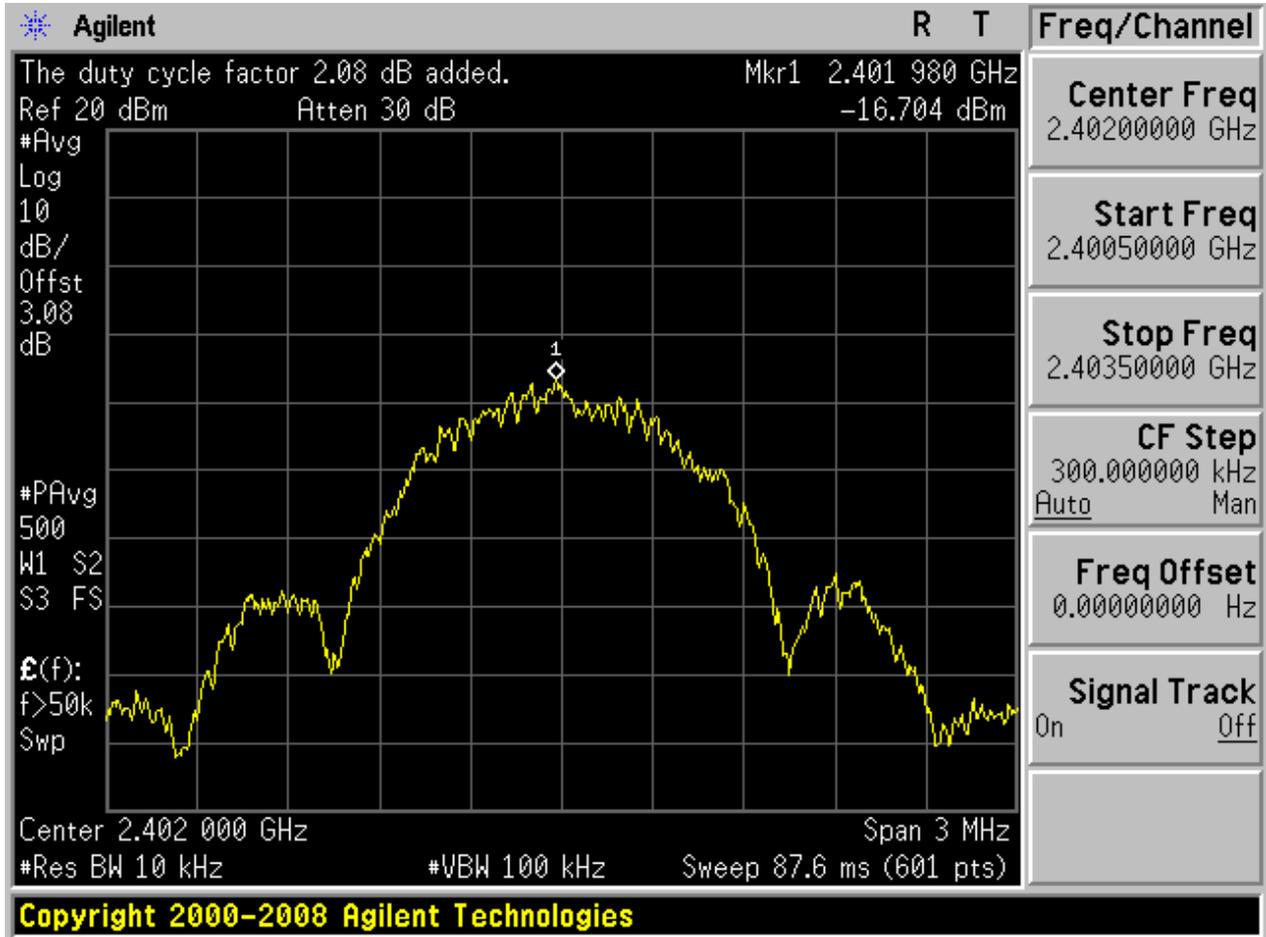
## Appendix E: Maximum Power Spectral Density Level

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	PD[MHz]	Verdict
TM1 _Ch0	L	2402	62	-16.70	pass
TM1 _Ch19	M	2440	62	-13.25	pass
TM1 _Ch39	H	2480	62	-15.69	pass

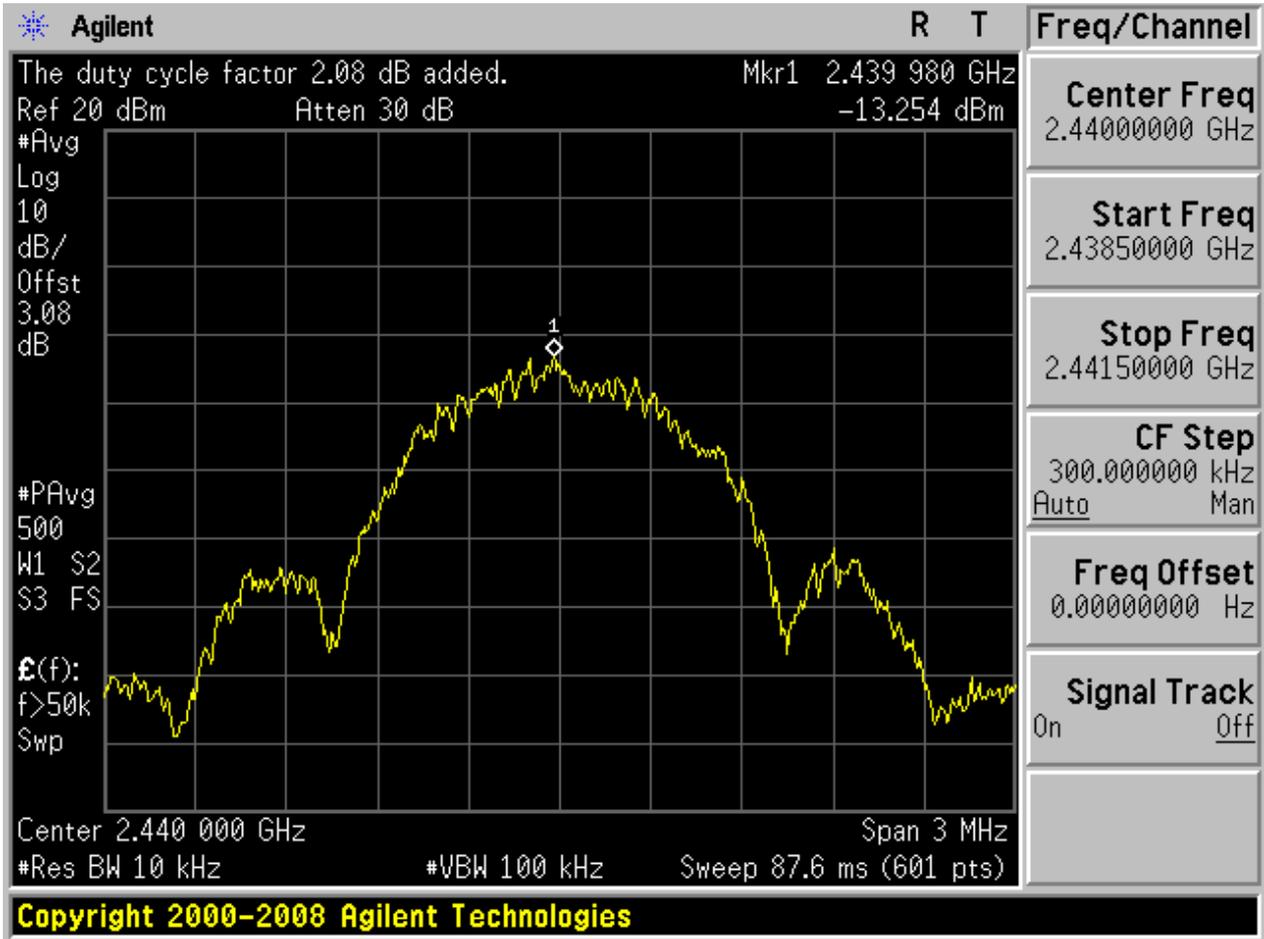
**Part II - Test Plots**

**2.1 TM1\_Ch0\_L**



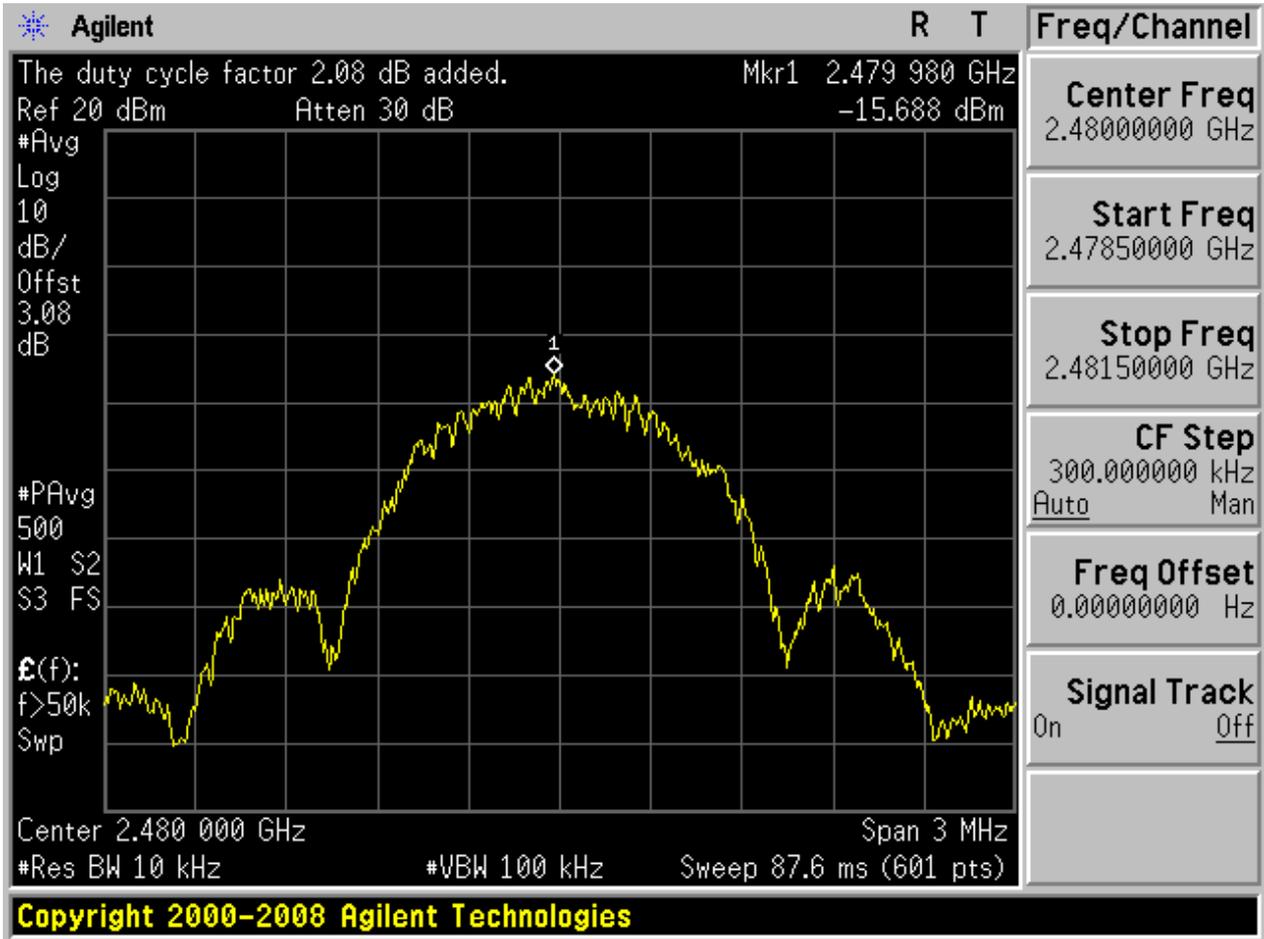


2.2 TM1\_Ch19\_M





2.3 TM1\_Ch39\_H



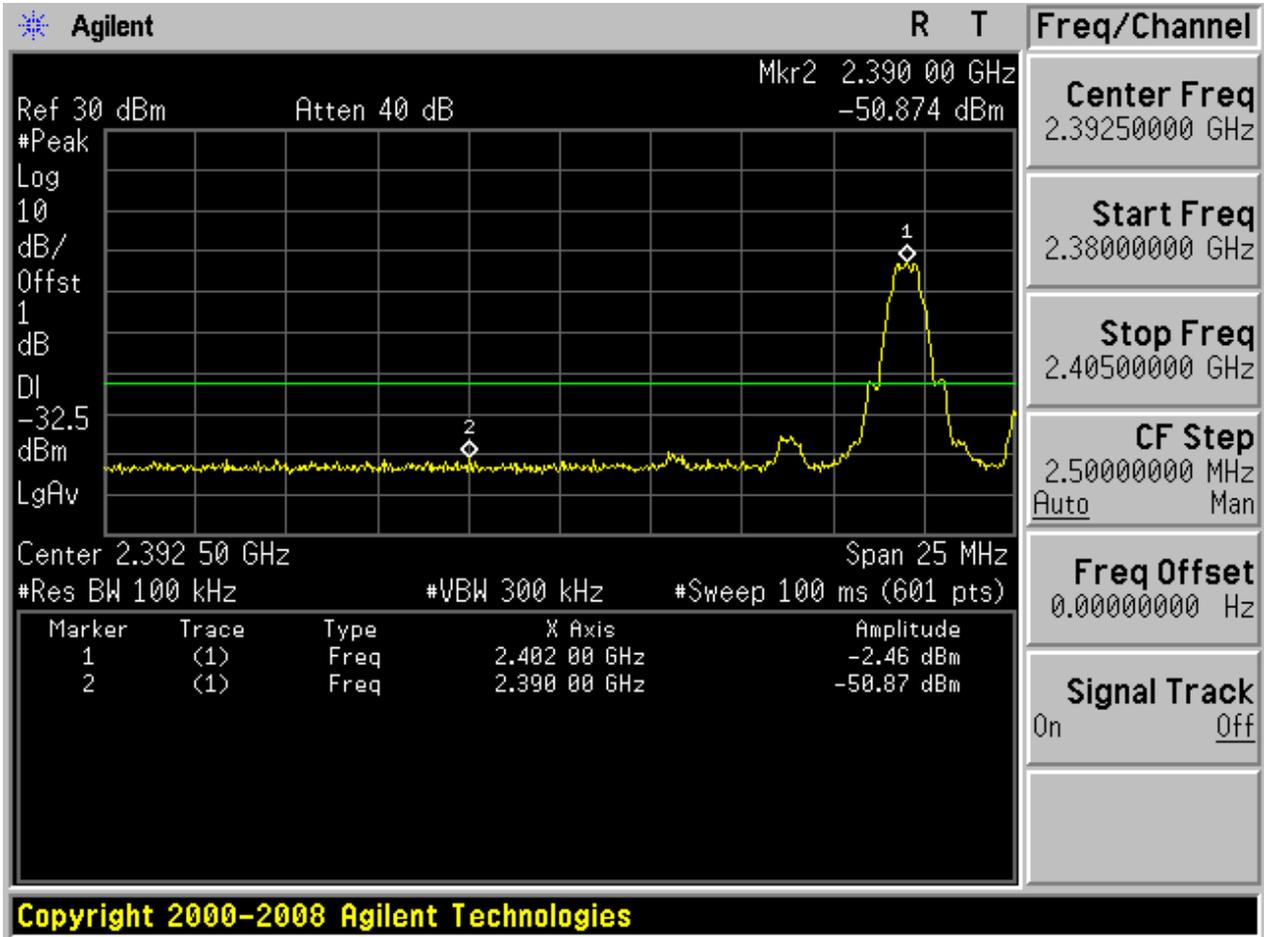
## Appendix F: Band Edges Compliance

### Part I - Test Results

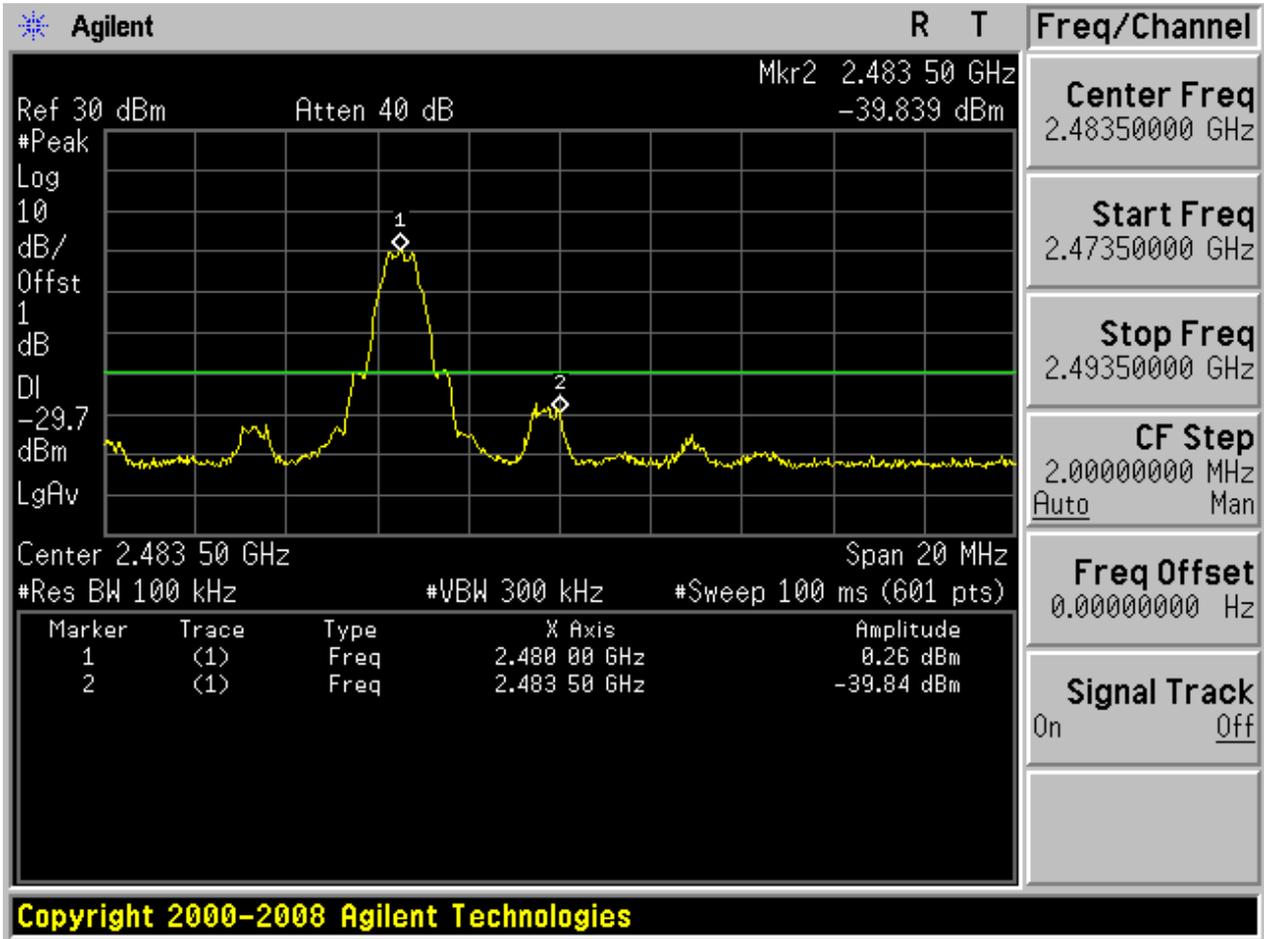
Test Mode	Test Channel	Frequency[MHz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
TM1_Ch 0	L	2402	-2.46	-50.87	pass
TM1_Ch 39	H	2480	0.26	-39.84	pass

**Part II - Test Plots**

**2.1 TM1\_Ch0\_L**



2.2 TM1\_Ch39\_H



## Appendix G: Unwanted Emissions into Non-Restricted Frequency

### Bands

In this Appendix, the "Pref", which is used as the reference level, refers to the peak power level in any 100 kHz bandwidth within the fundamental emission, the "Puw" refers to the maximum emission power in 100 kHz band segments outside of the authorized frequency band.

Considering that the higher ratio of RBW to the span for the frequency ranges below 30 MHz makes the results determination be complicated, a narrower RBW other than 100 kHz is used for these ranges. The measured value should add a RBW correction factor (RBWCF) where  $RBWCF [dB] = 10 \times \lg(100 [kHz]/\text{narrower RBW [kHz]})$ . As to this Appendix, the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain and used as respective results for each chain, due to the relative-limit requirement.

In the result table, the "< Limit" denotes that "The Puw [dBm] is less than Pref[dBm]-20[dBm], see test plots for detailed".

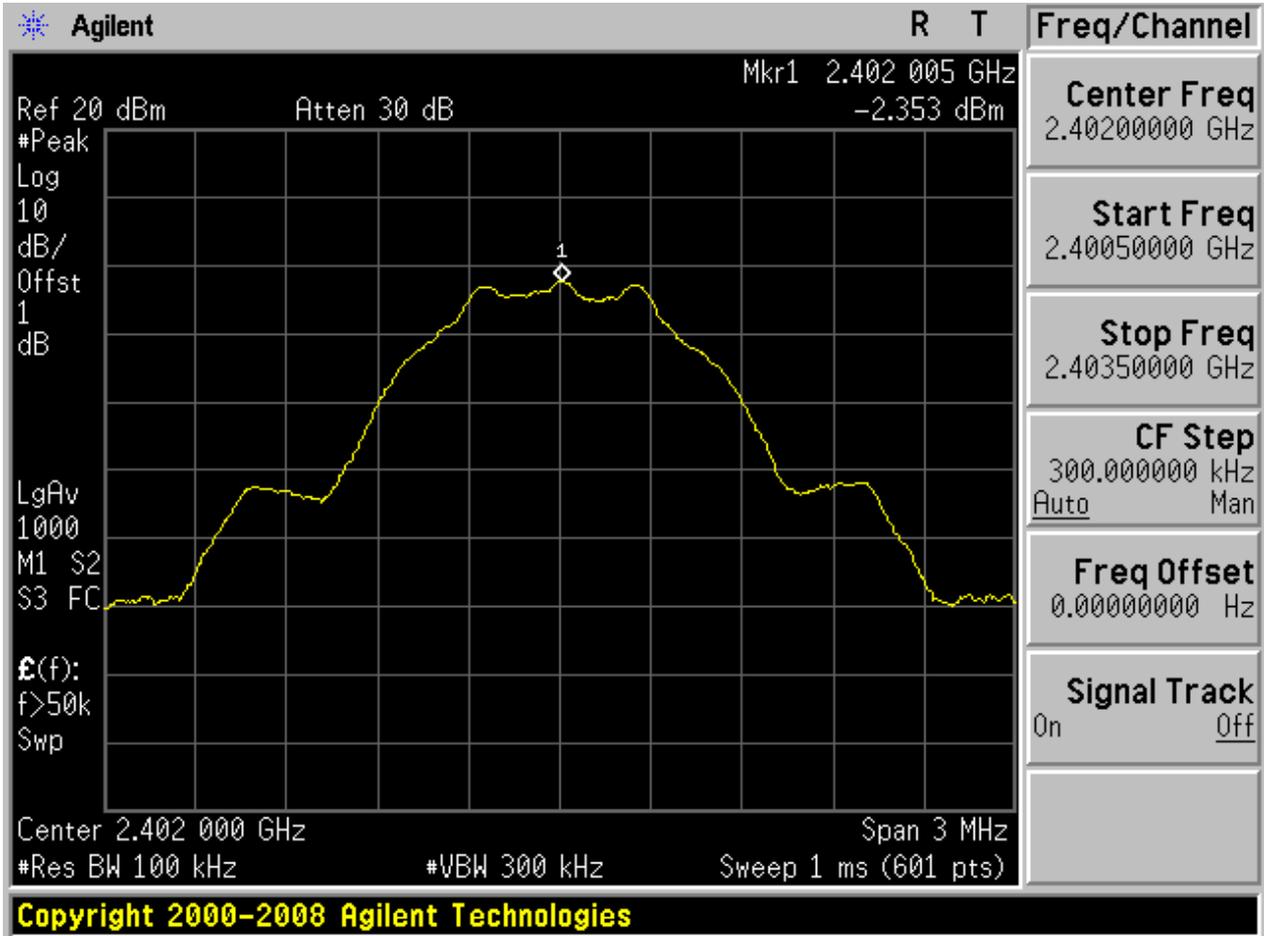
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Pref[dBm]	Puw[dBm]	Verdict
TM1_Ch0	L	2402	-2.35	<limit	pass
TM1_Ch19	M	2440	1.11	<limit	pass
TM1_Ch39	H	2480	-1.44	<limit	pass

**Part II - Test Plots**

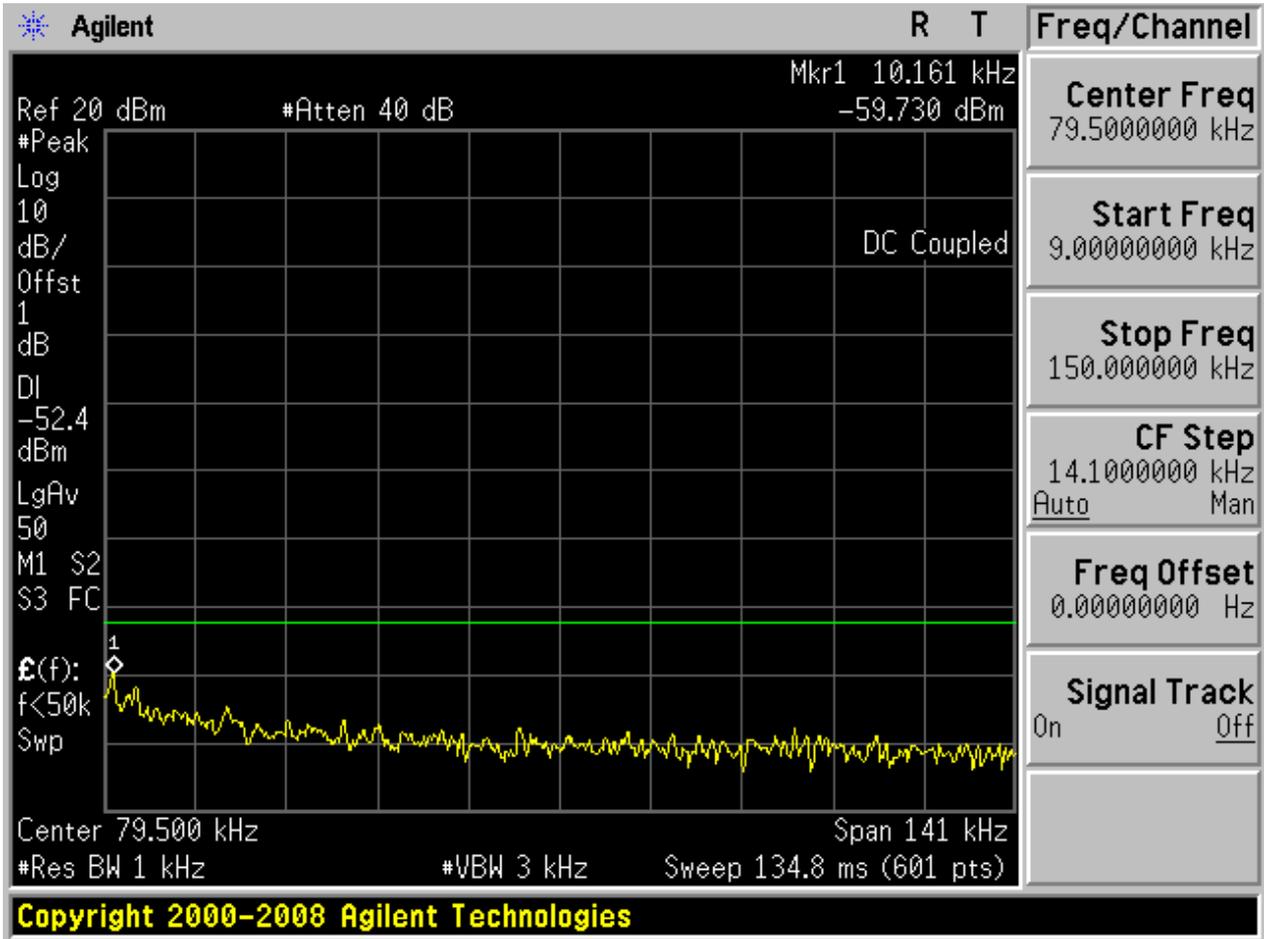
**2.1 TM1\_Ch0\_L**

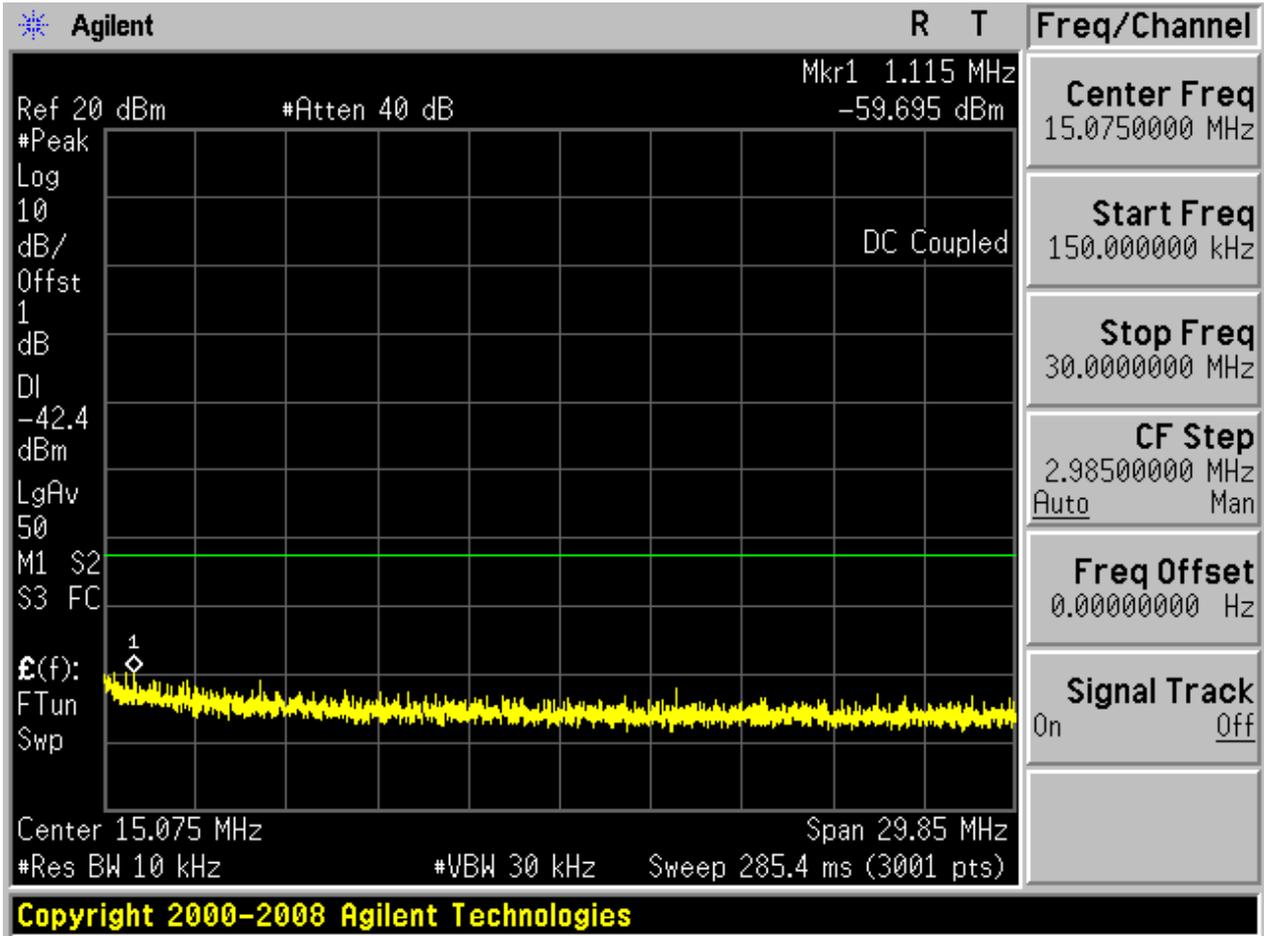
**Pref:**

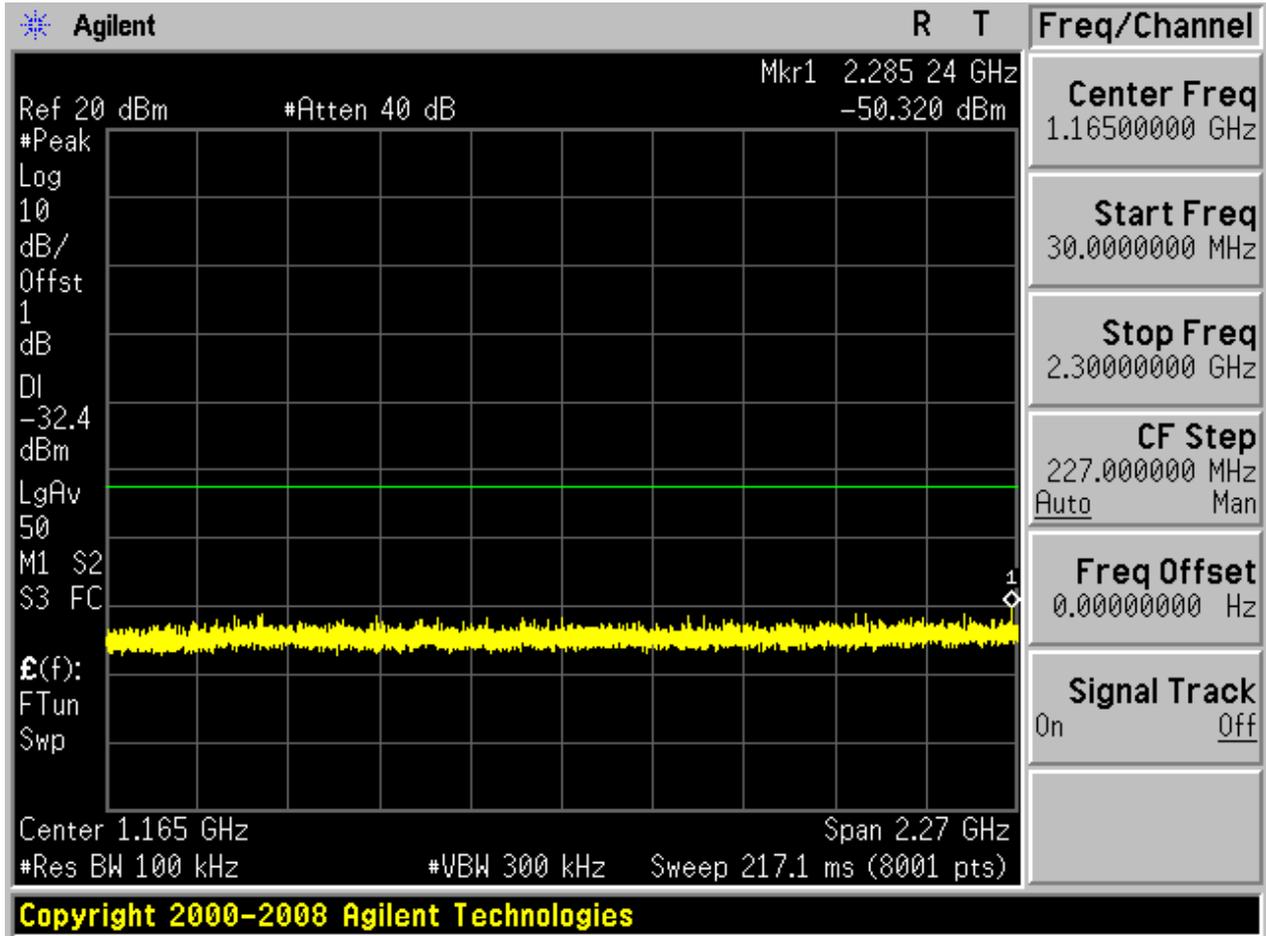


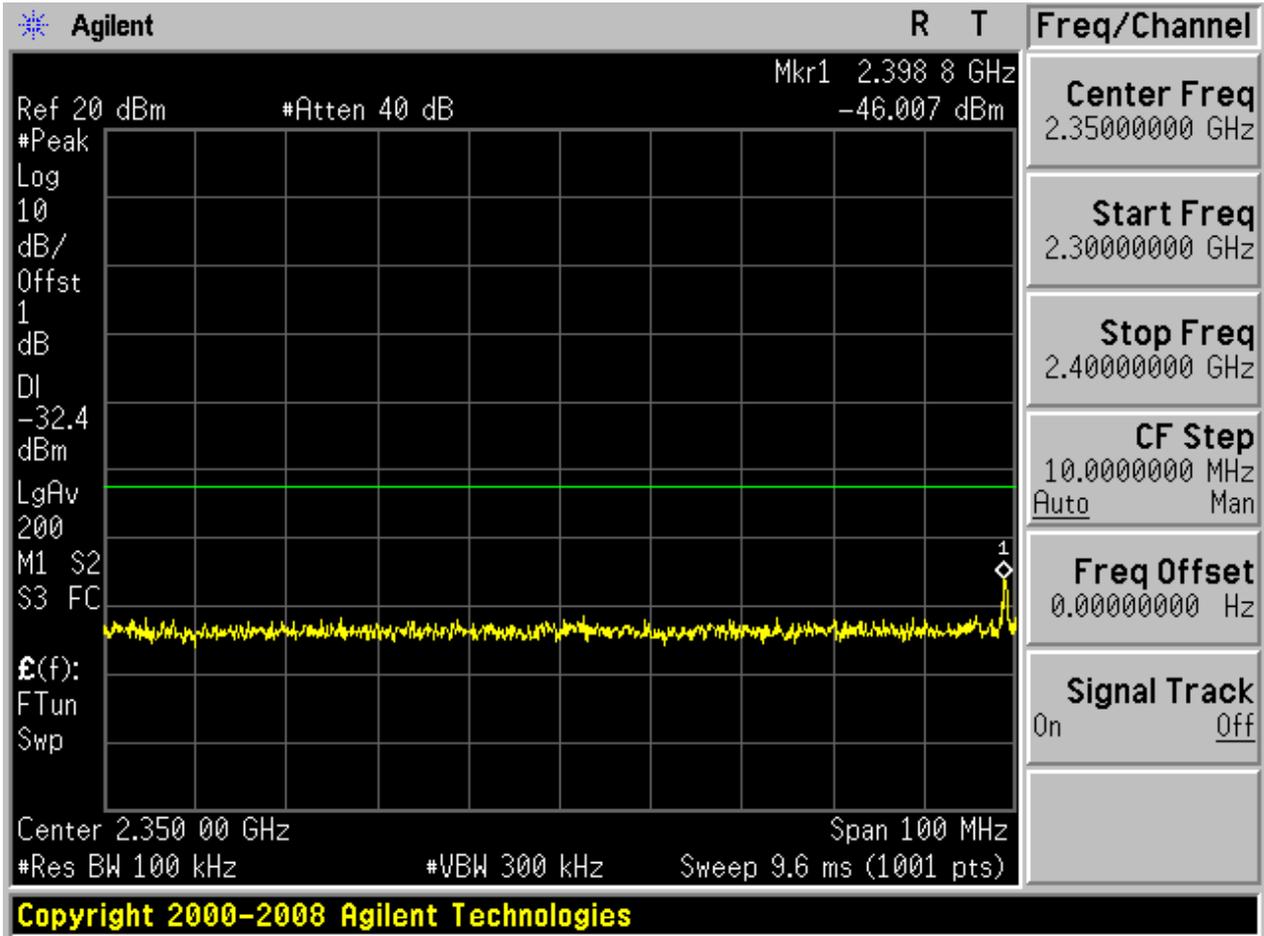


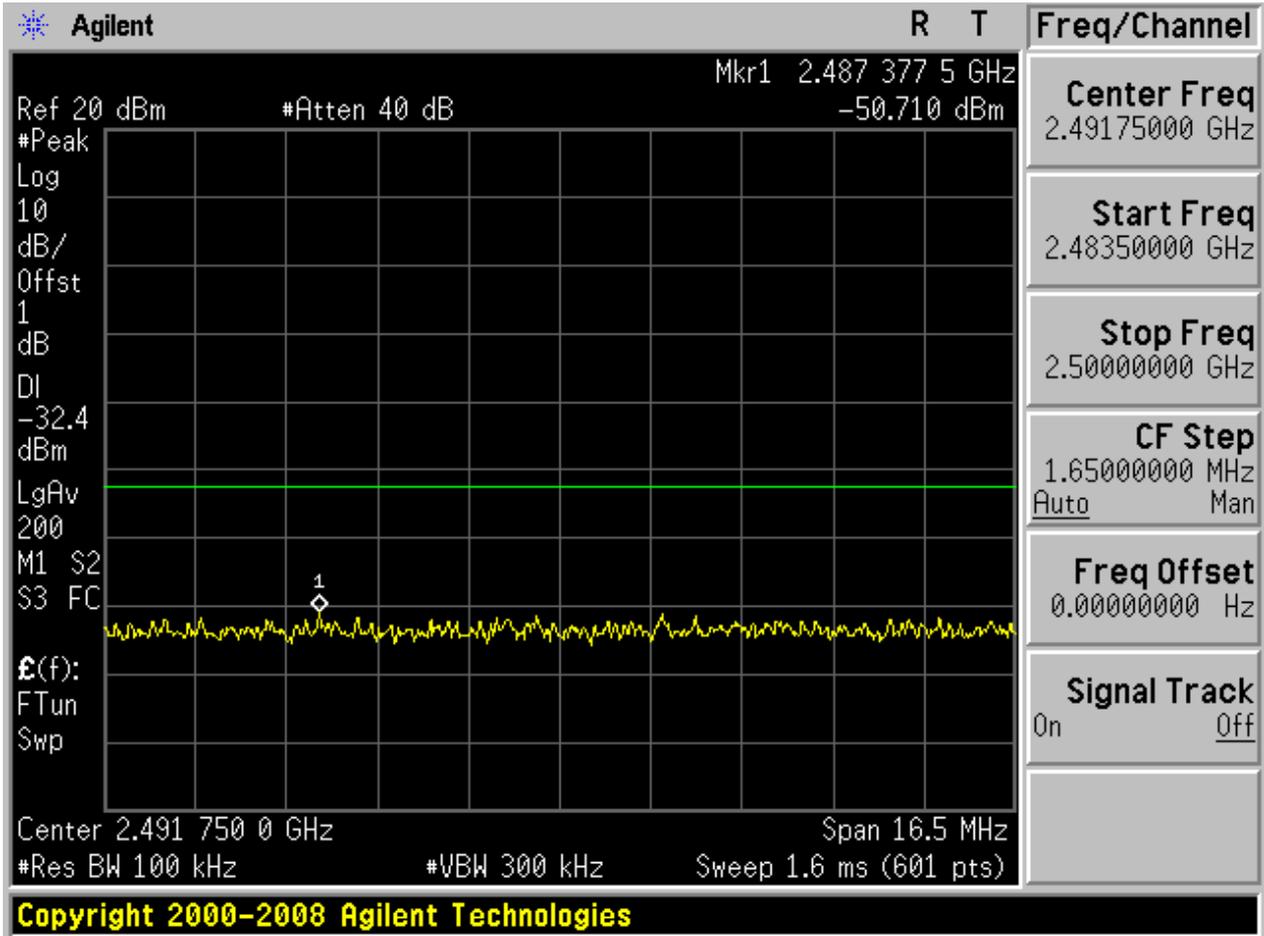
Puw:

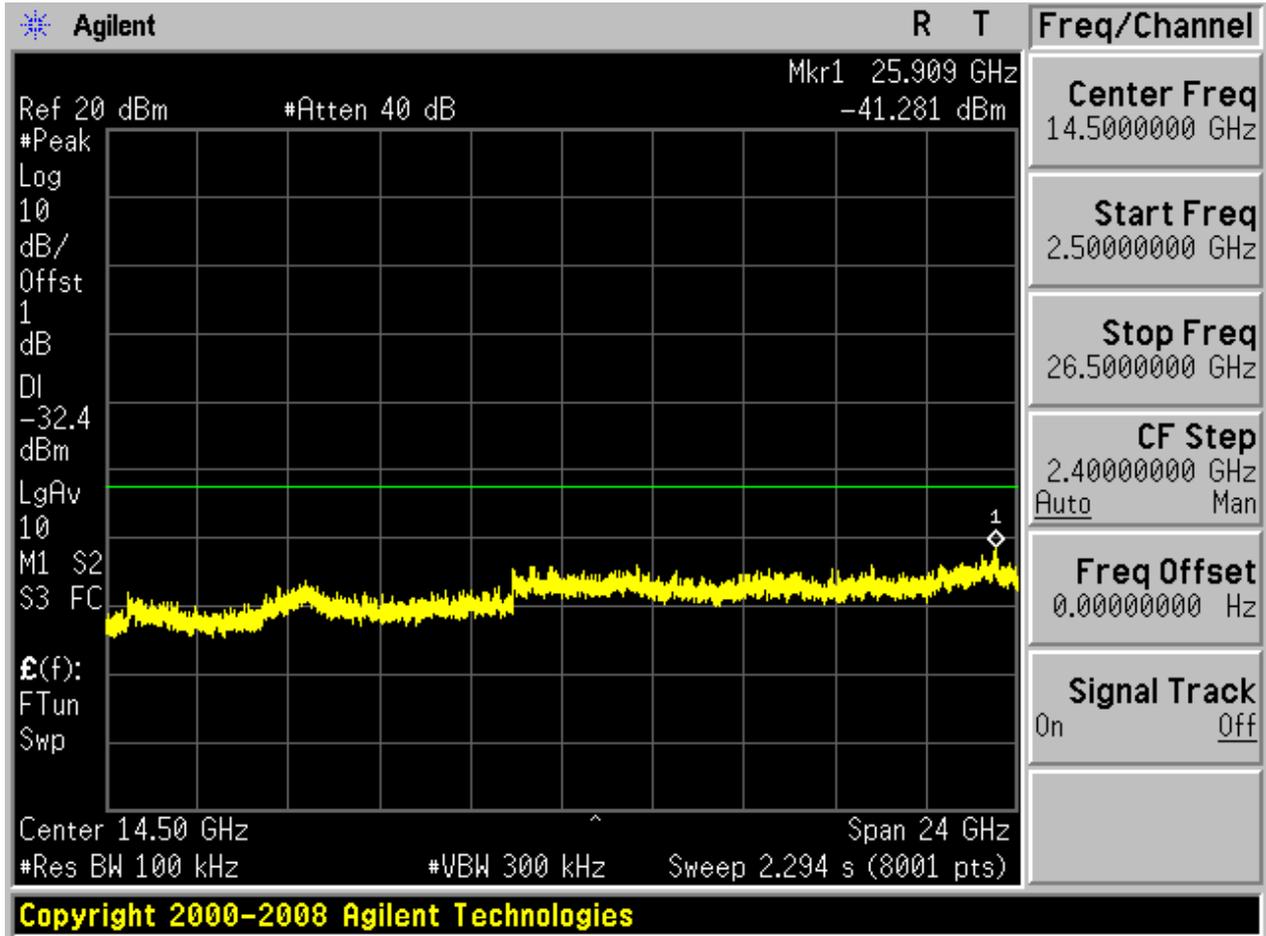








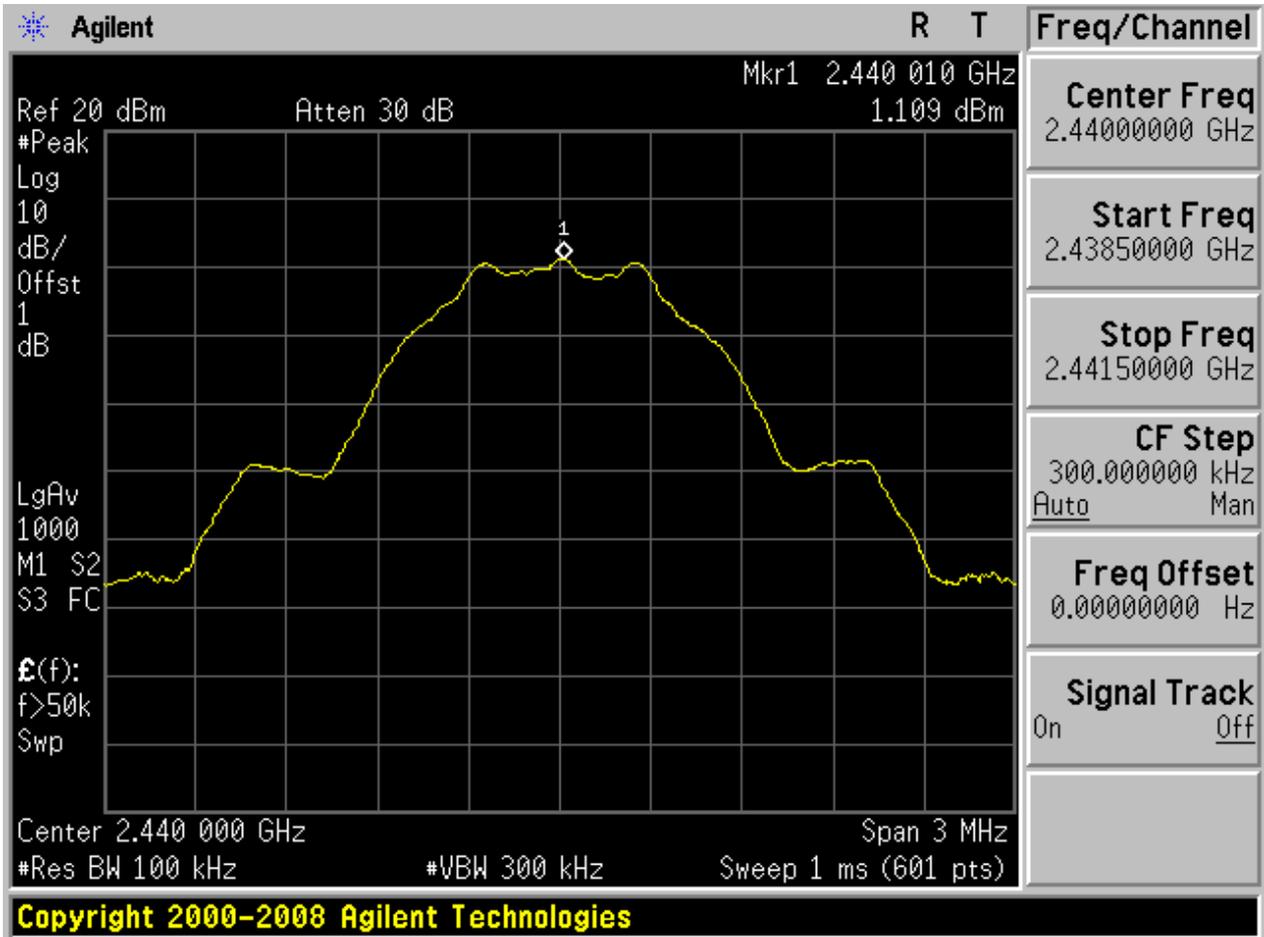






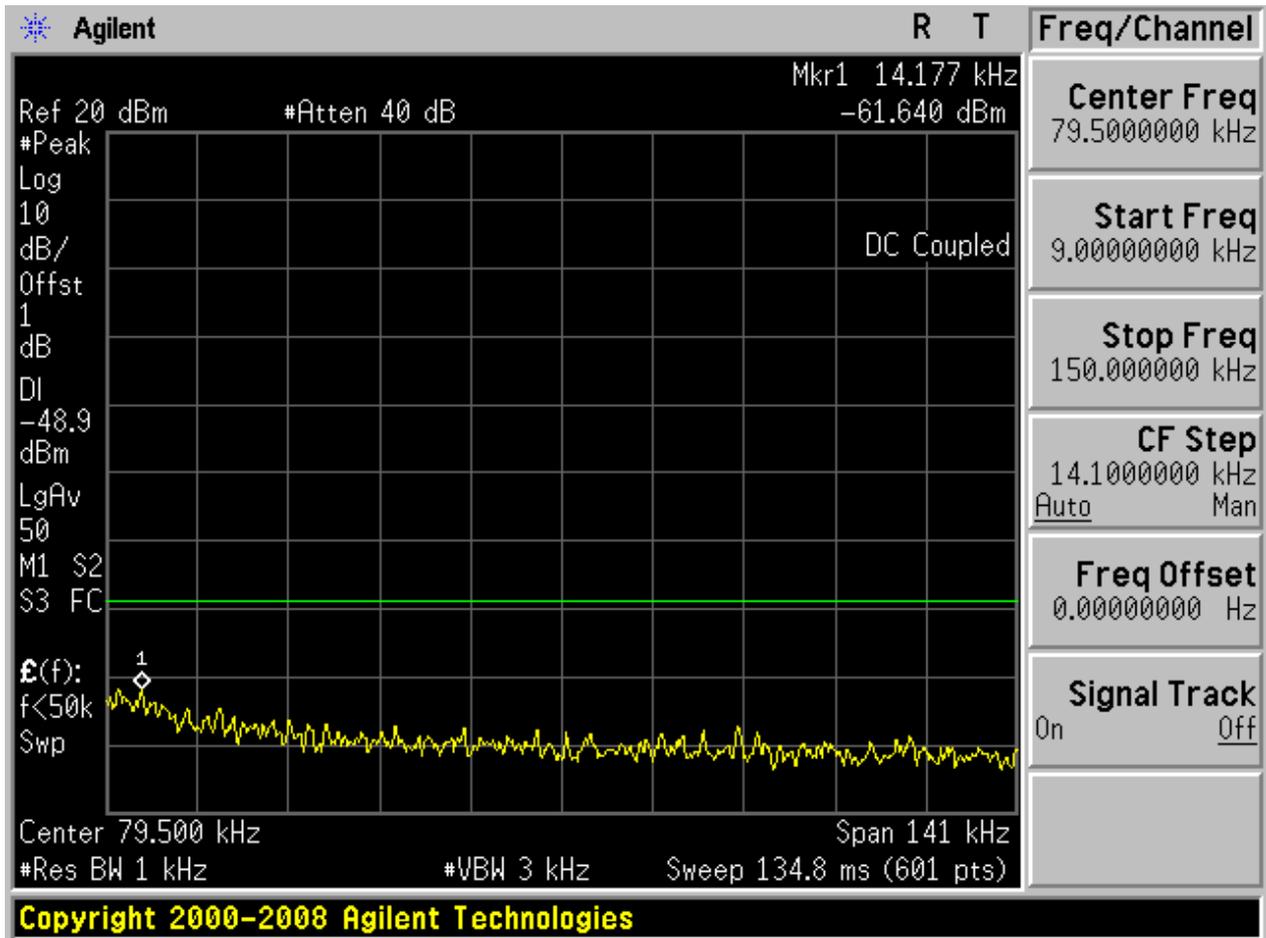
### 2.3 TM1\_Ch19\_M

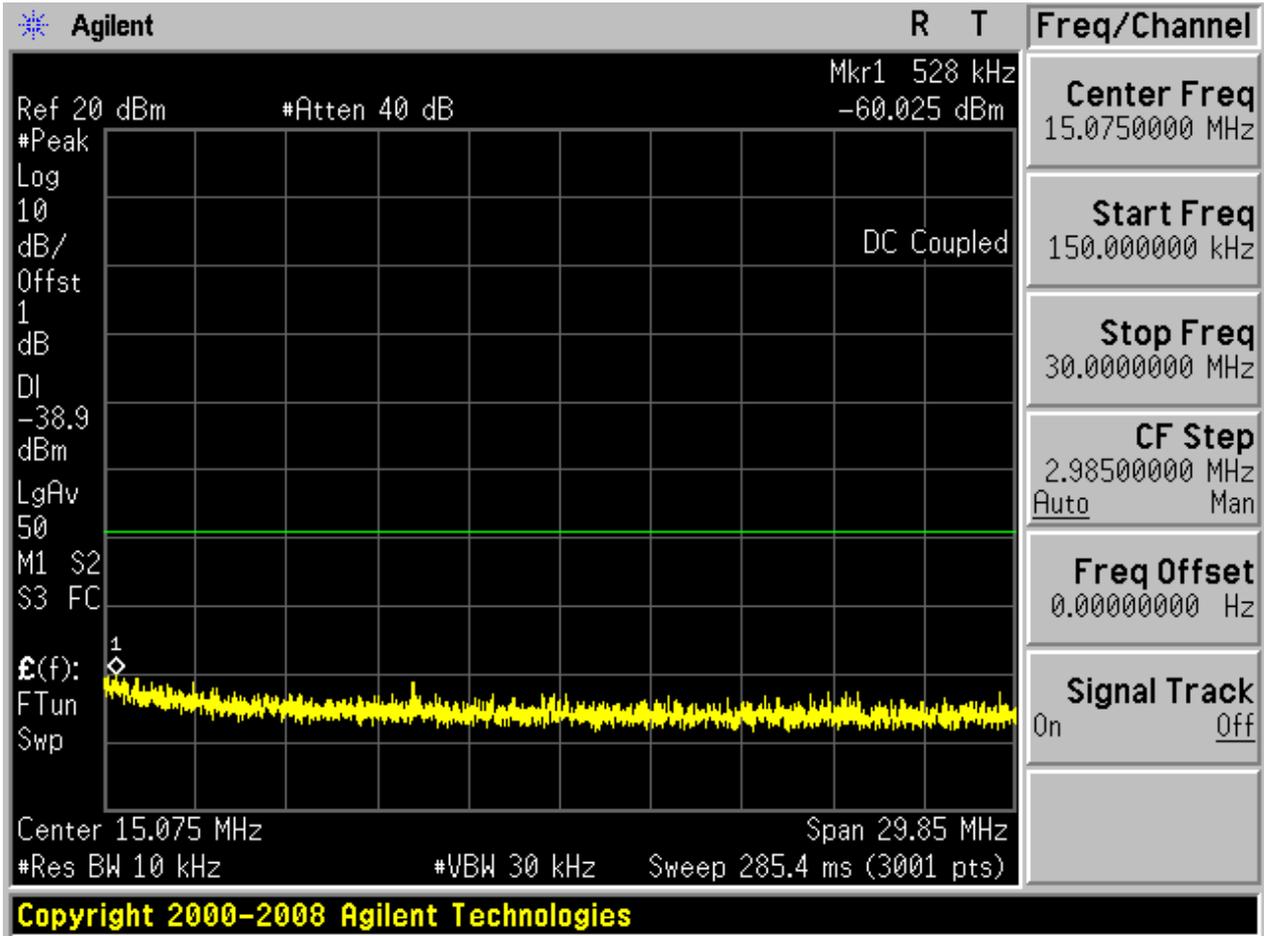
Pref:

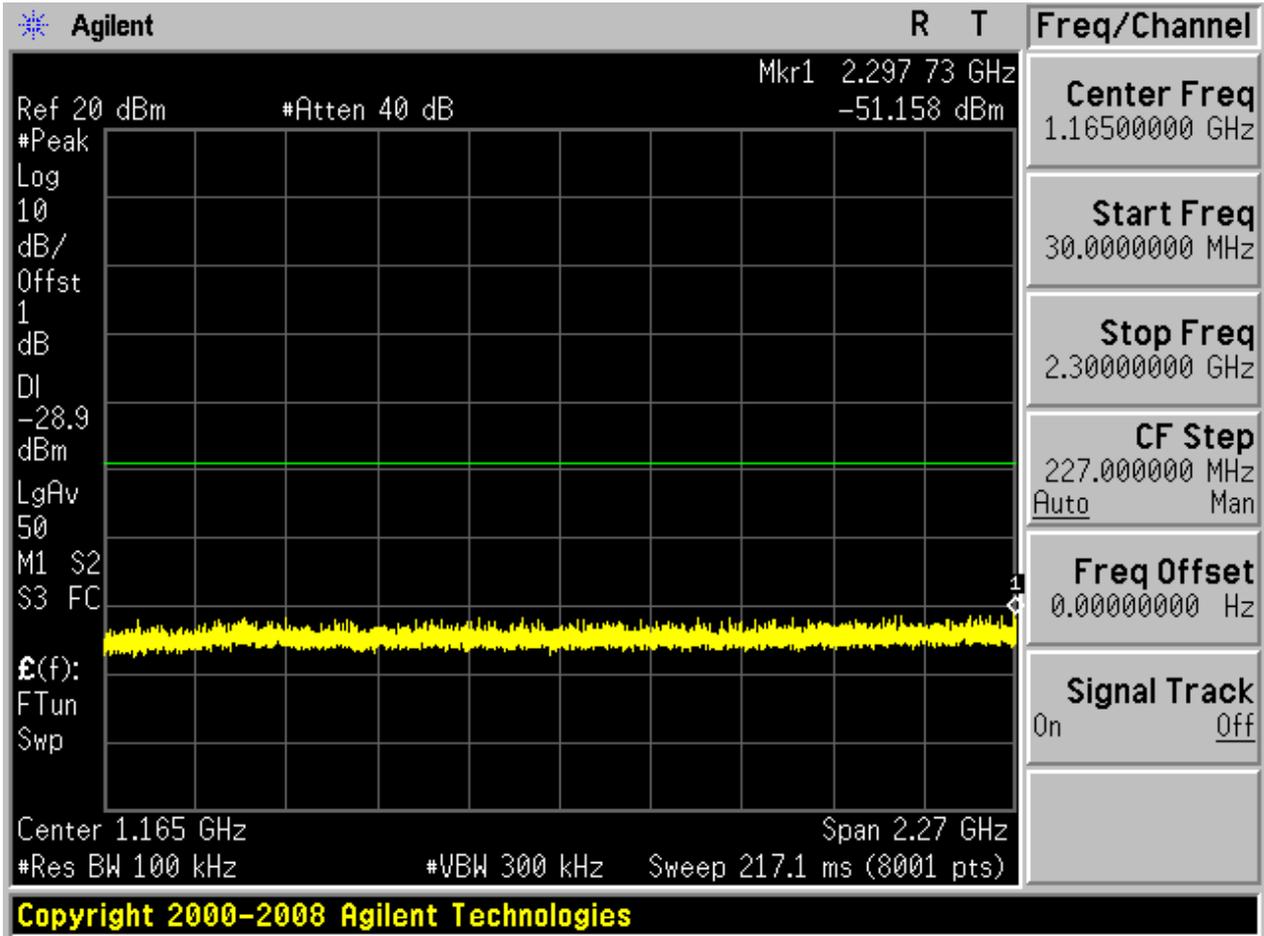


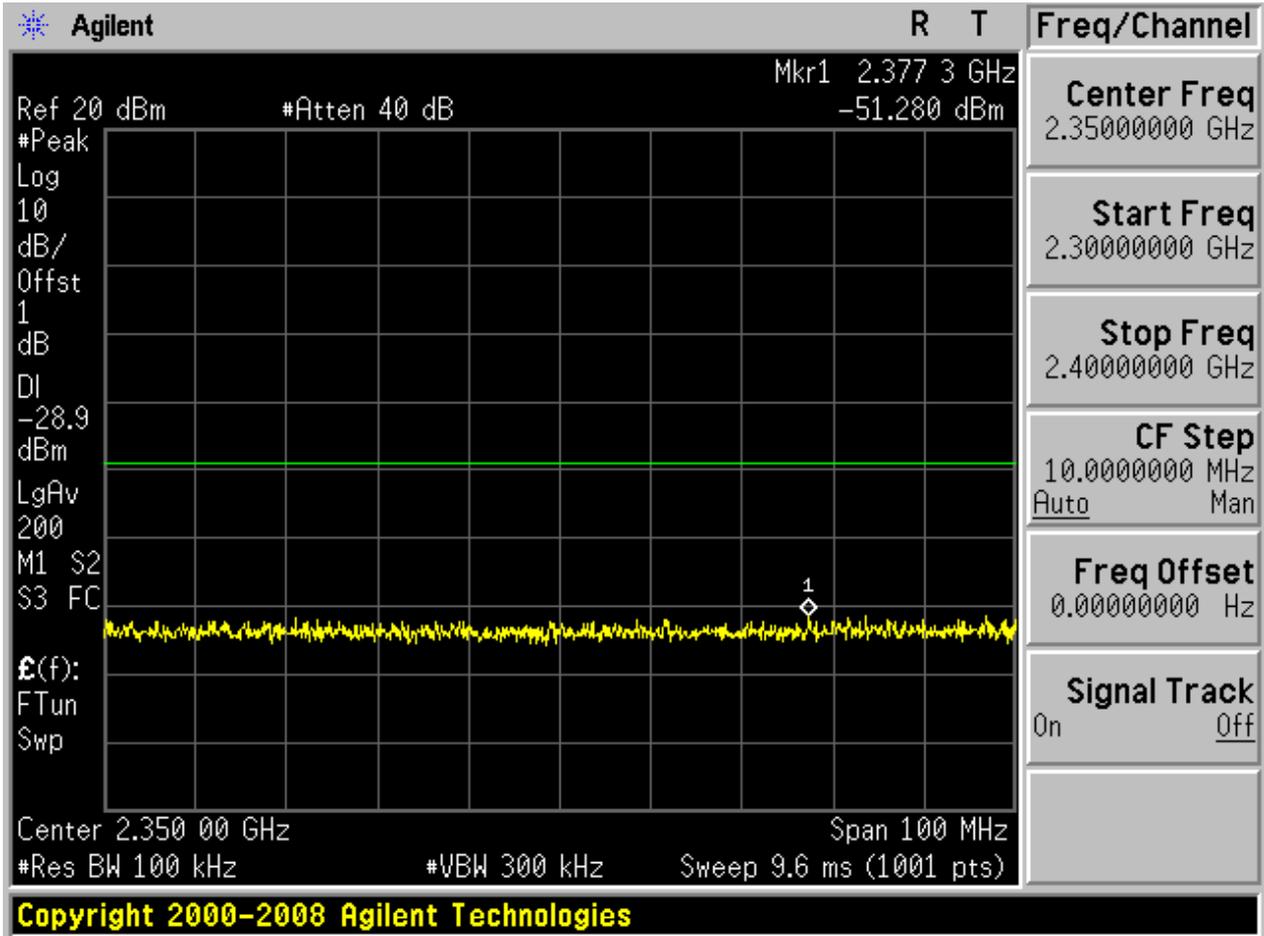


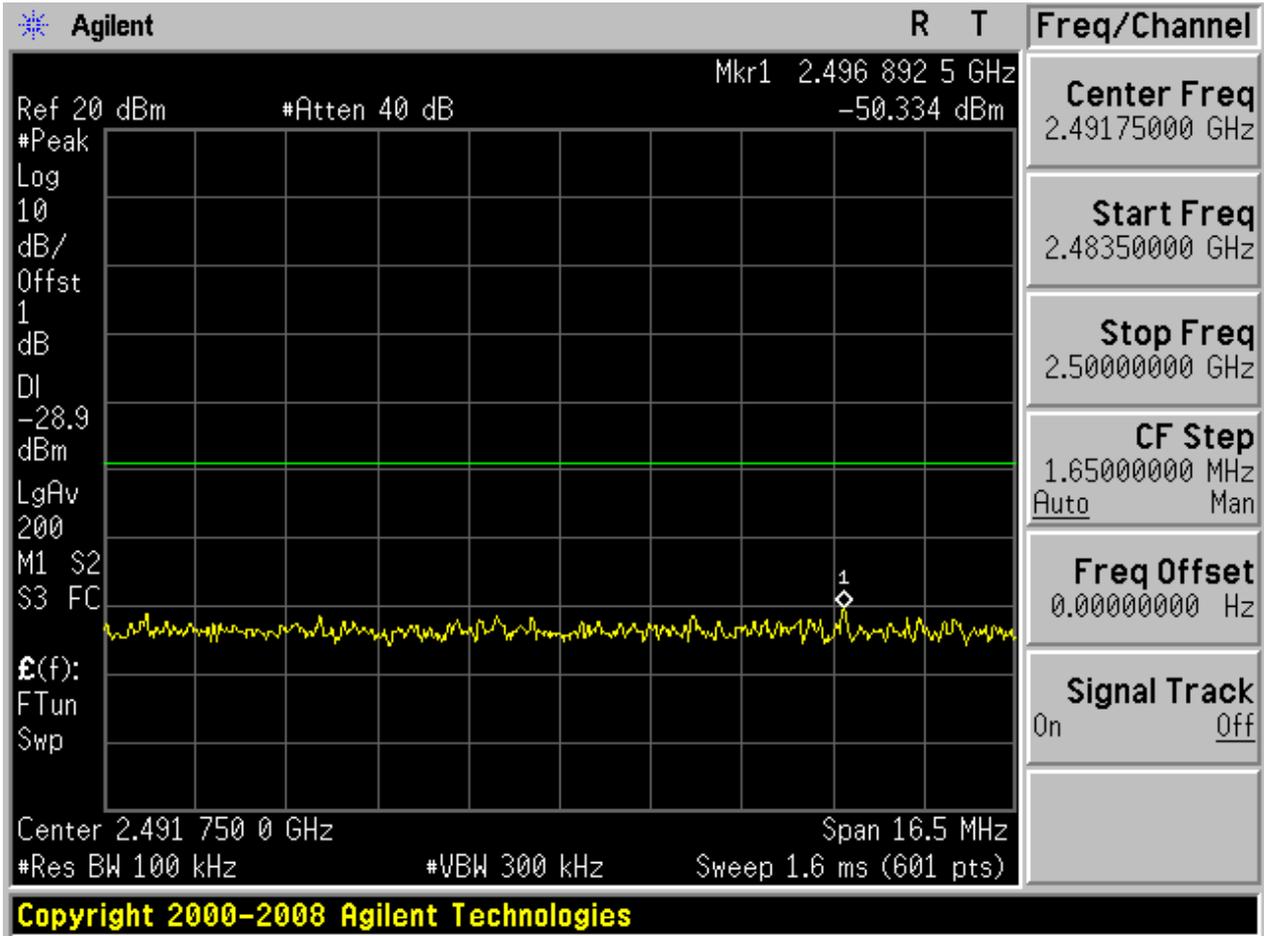
Puw:

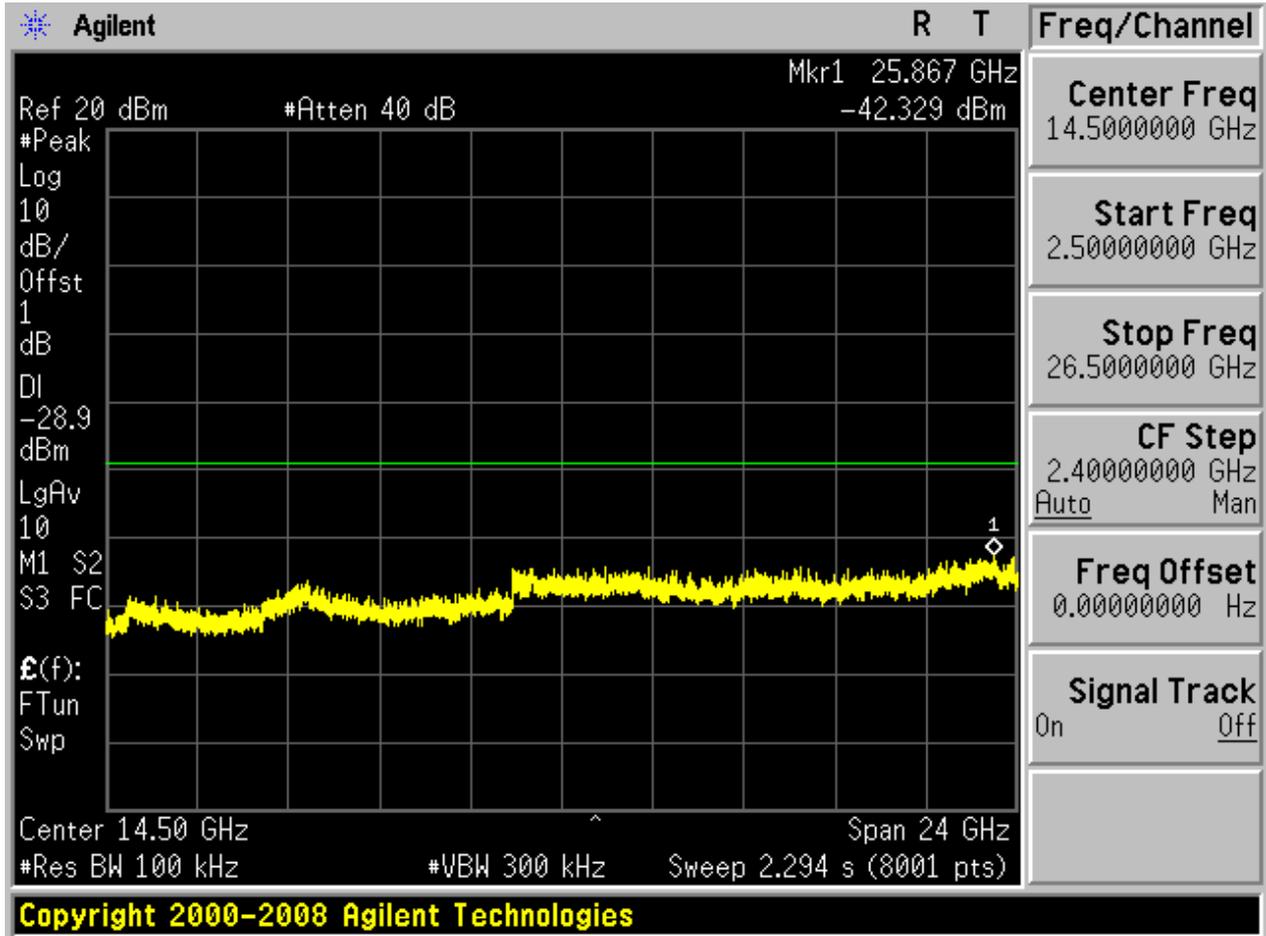






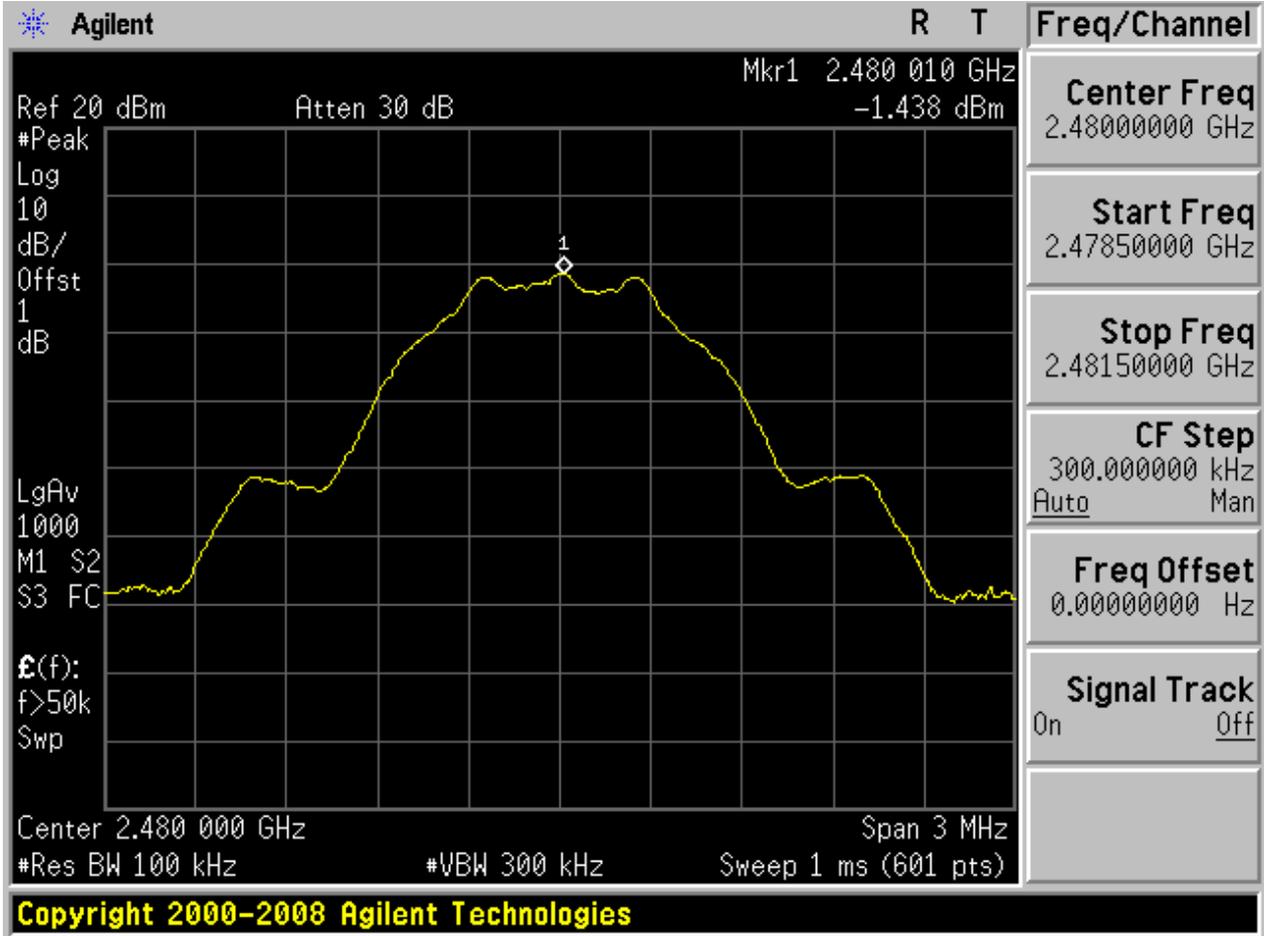






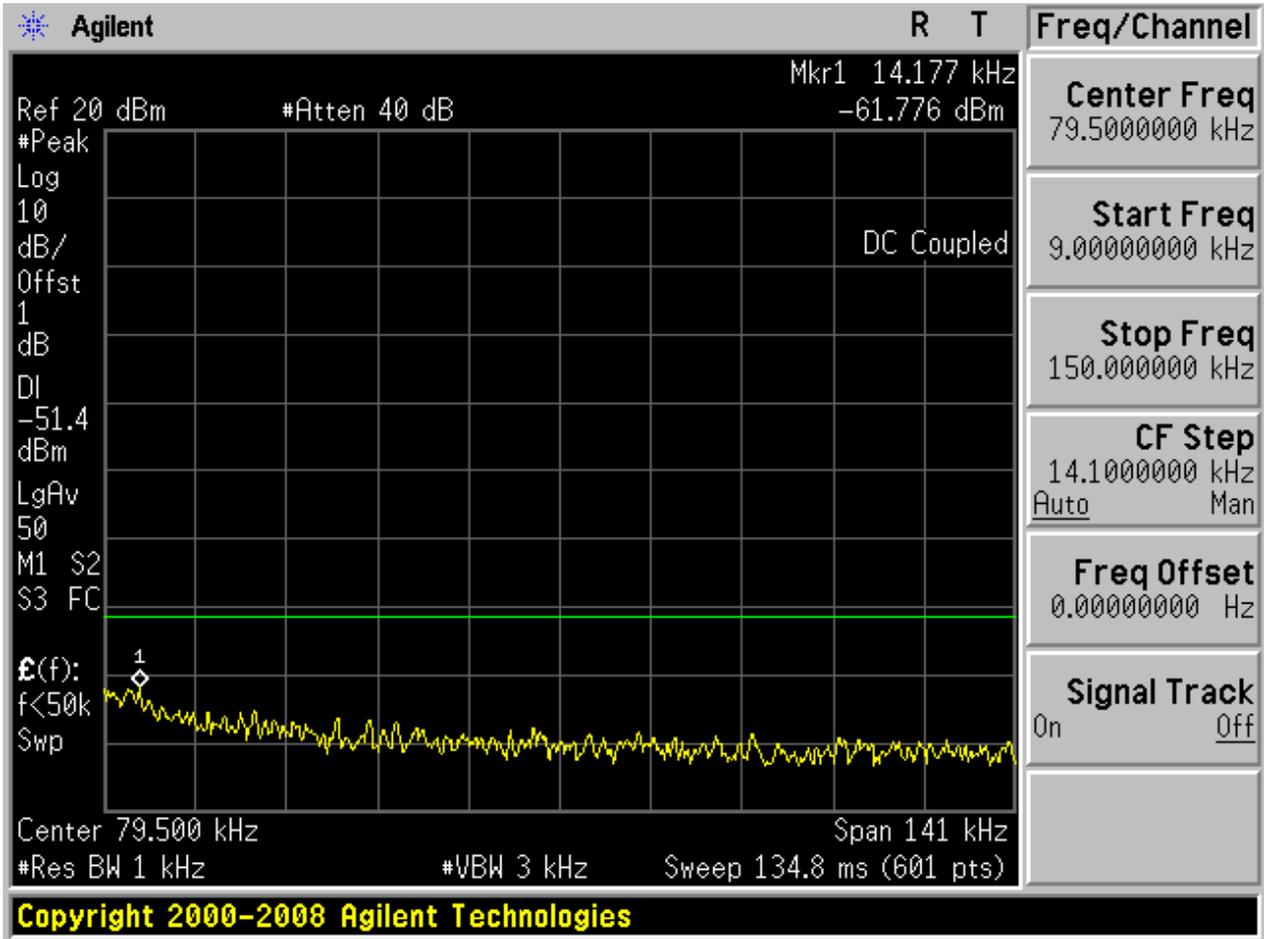
2.5 TM1\_Ch39\_H

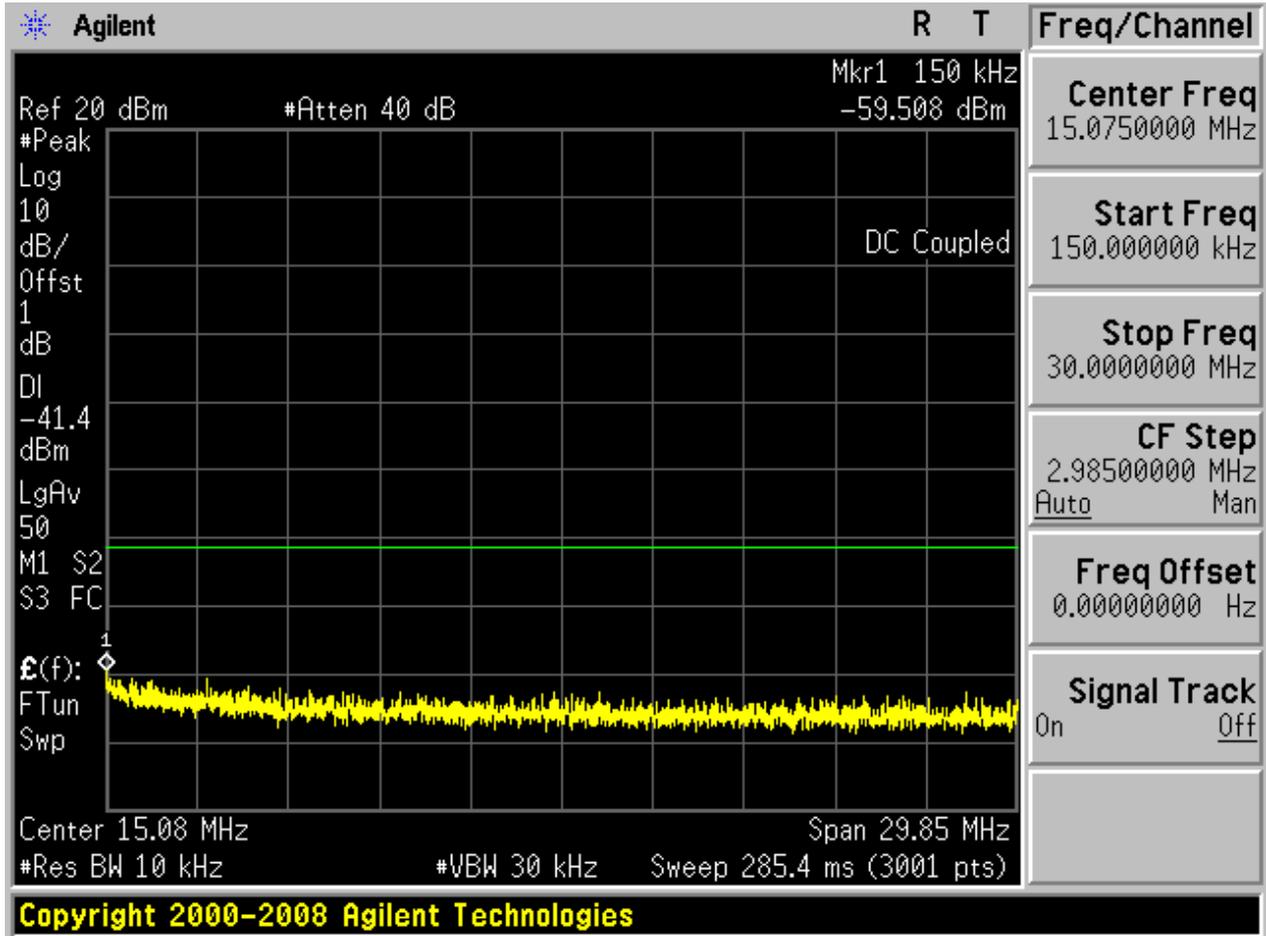
Pref:

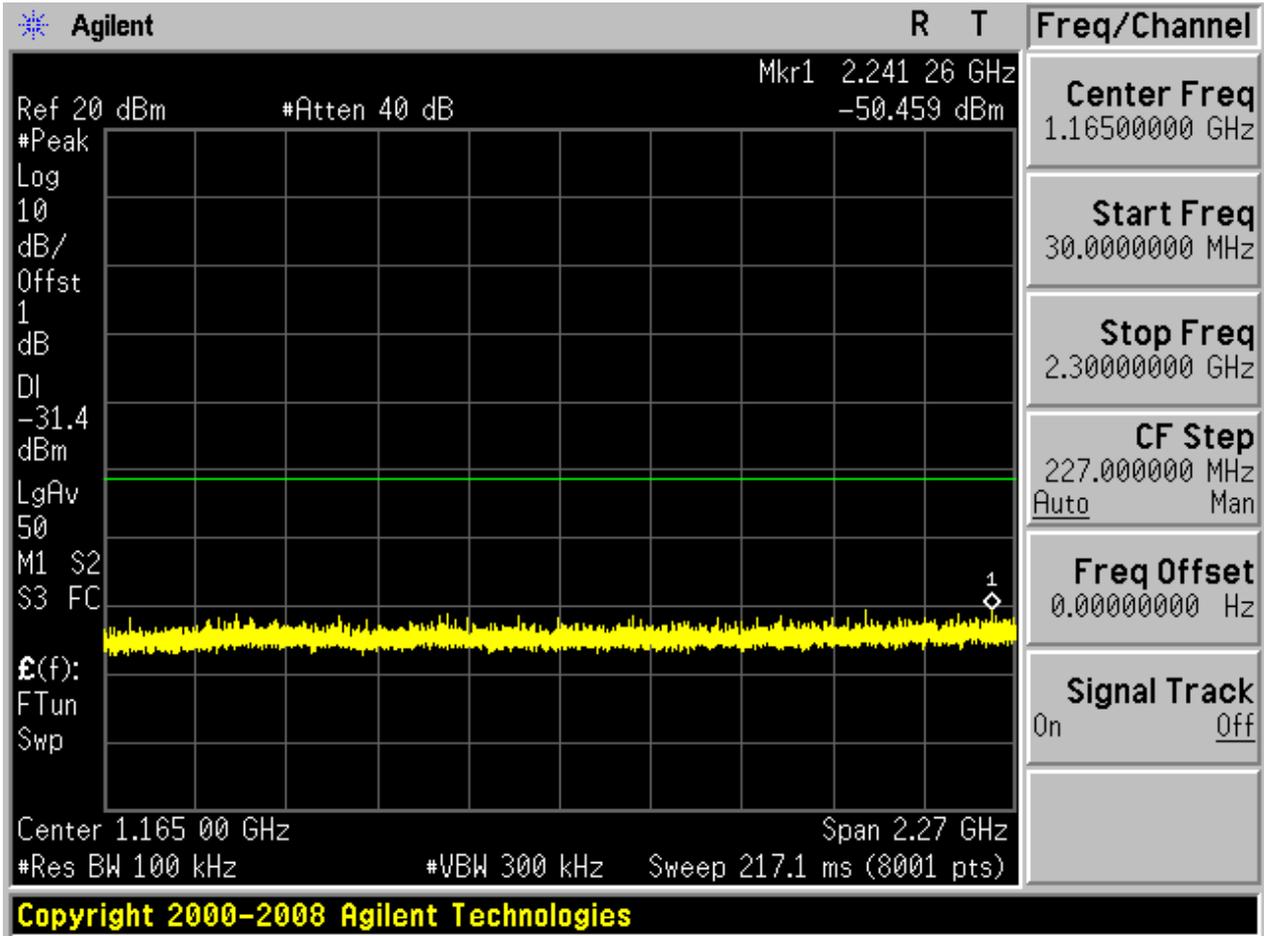


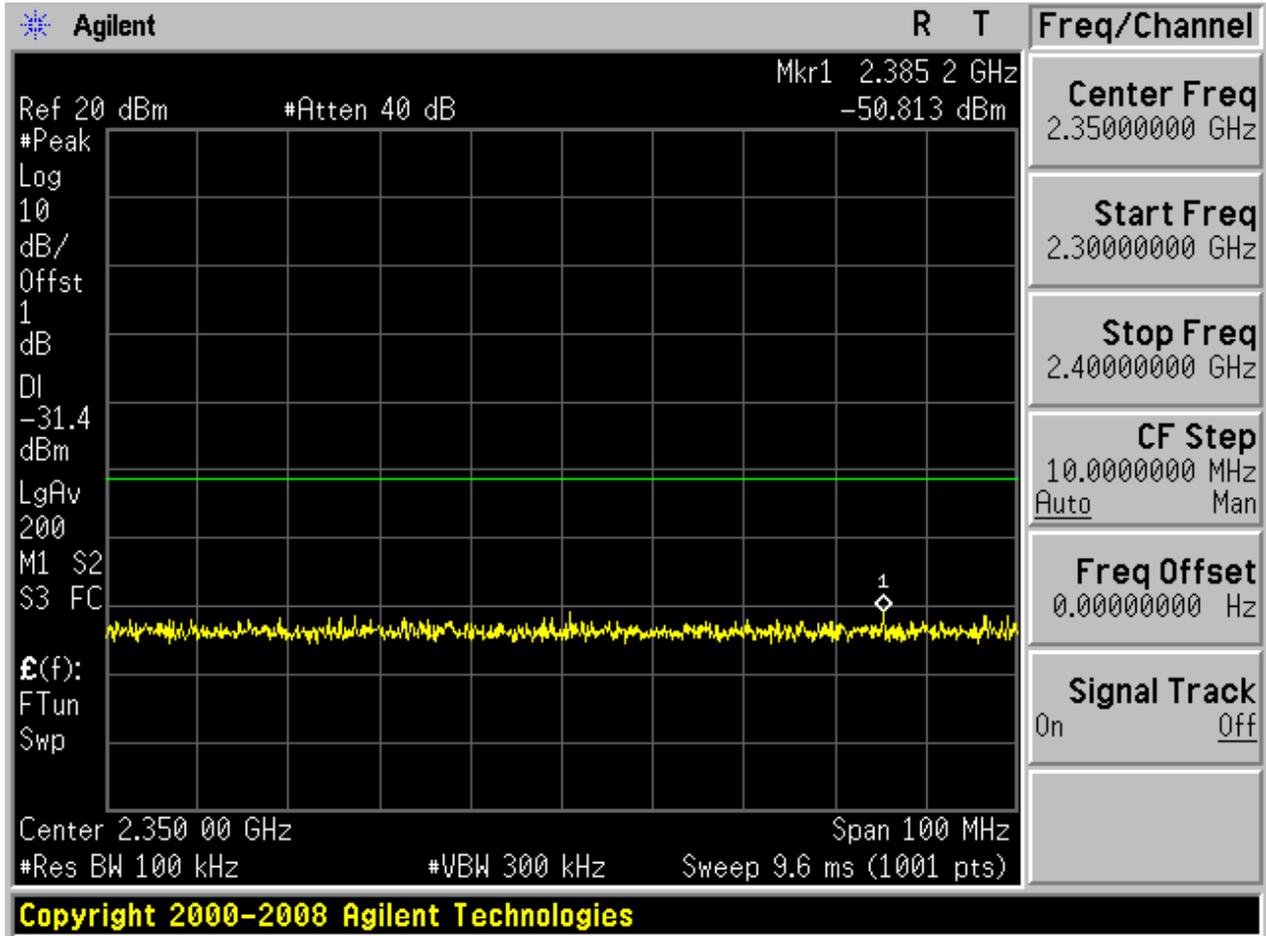


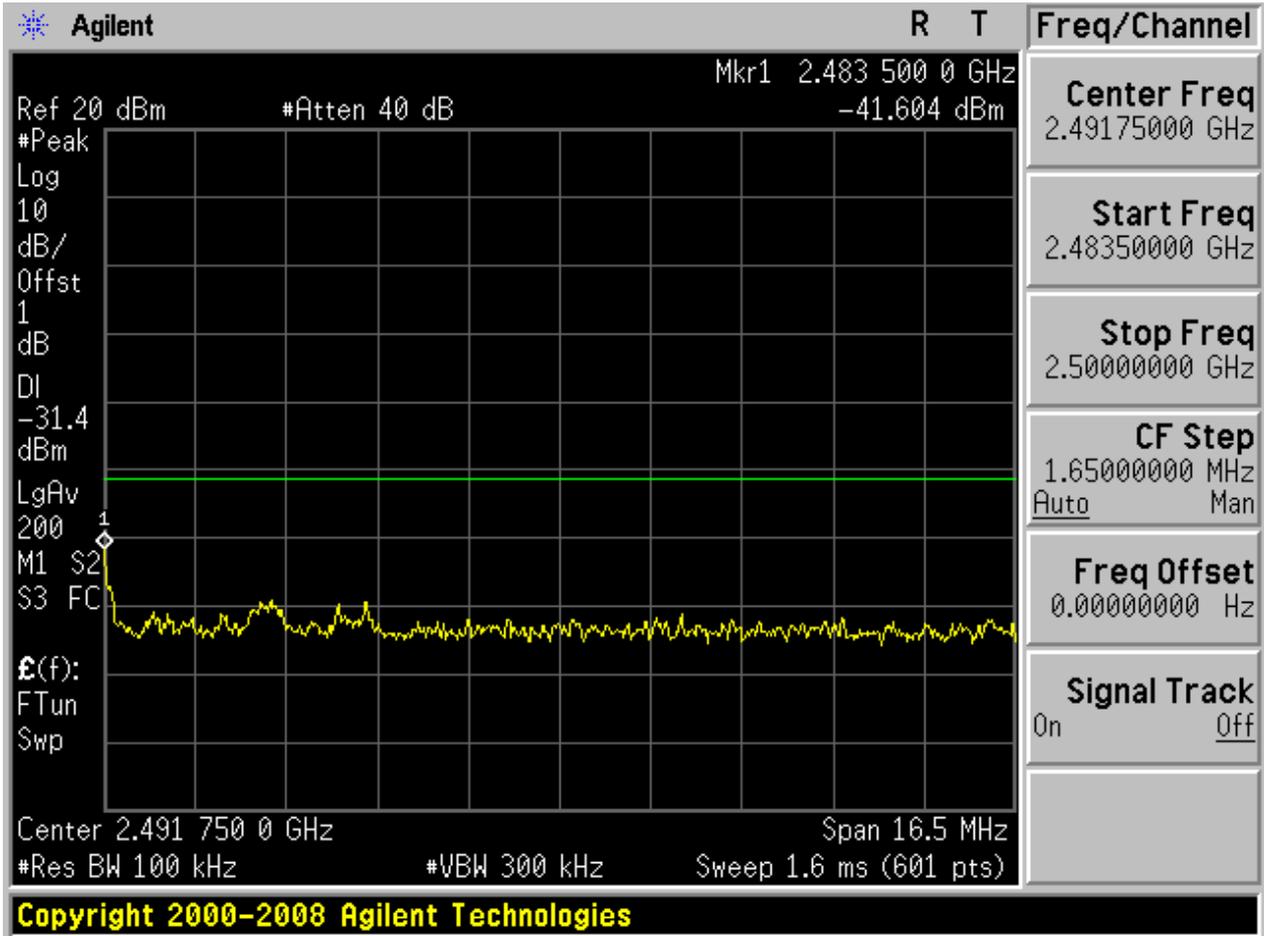
Puw:

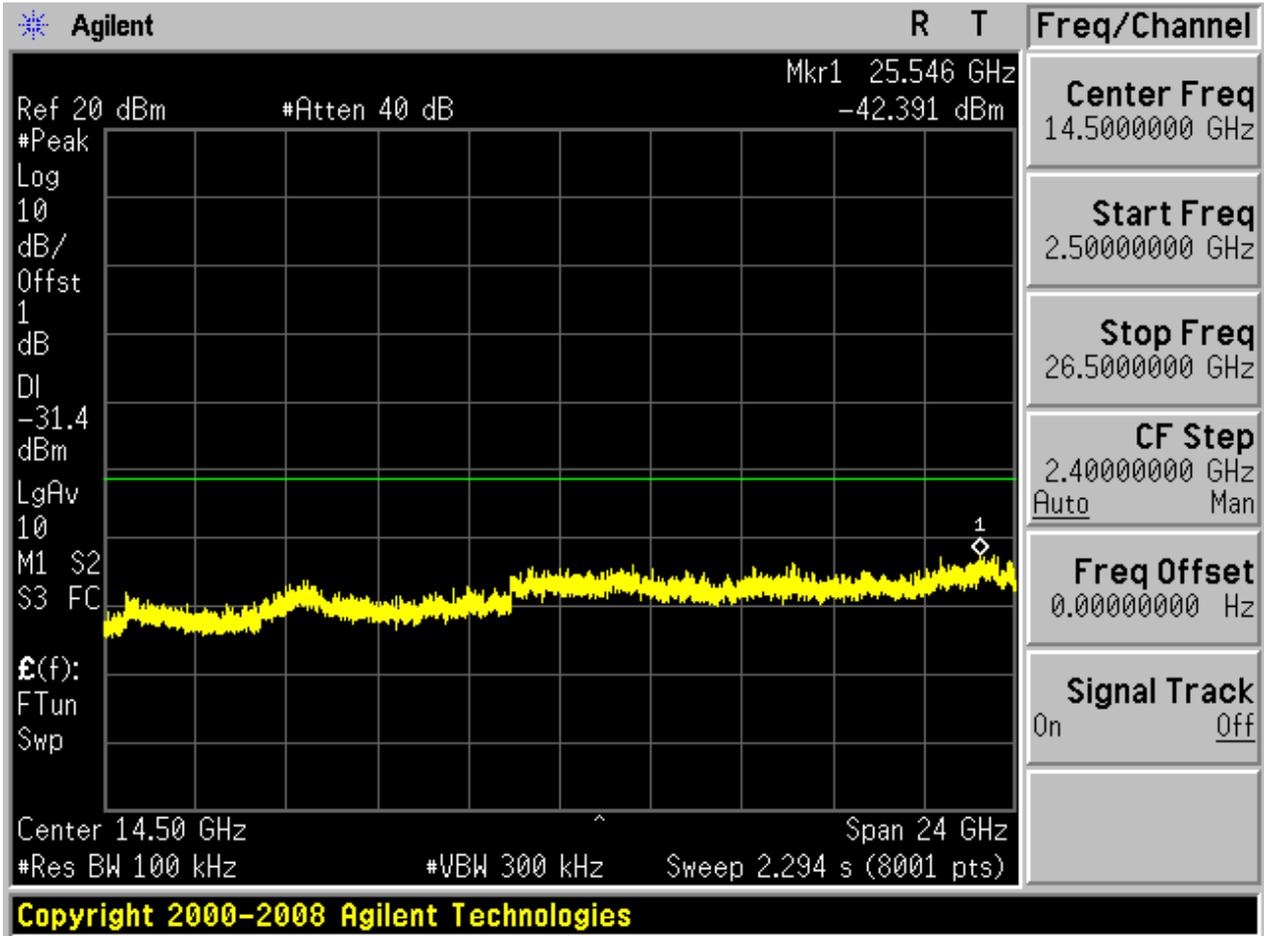














## **Appendix H: Radiated Spurious Emission & Spurious in Restricted Band**

Note: Below 1GHz, RBW = 100 kHz, VBW = 300 kHz.

Above 1GHz, RBW = 1 MHz, VBW = 3 MHz.

The simultaneous transmission has been considered

We tested all modes, but the data presented below is the worst case. Below

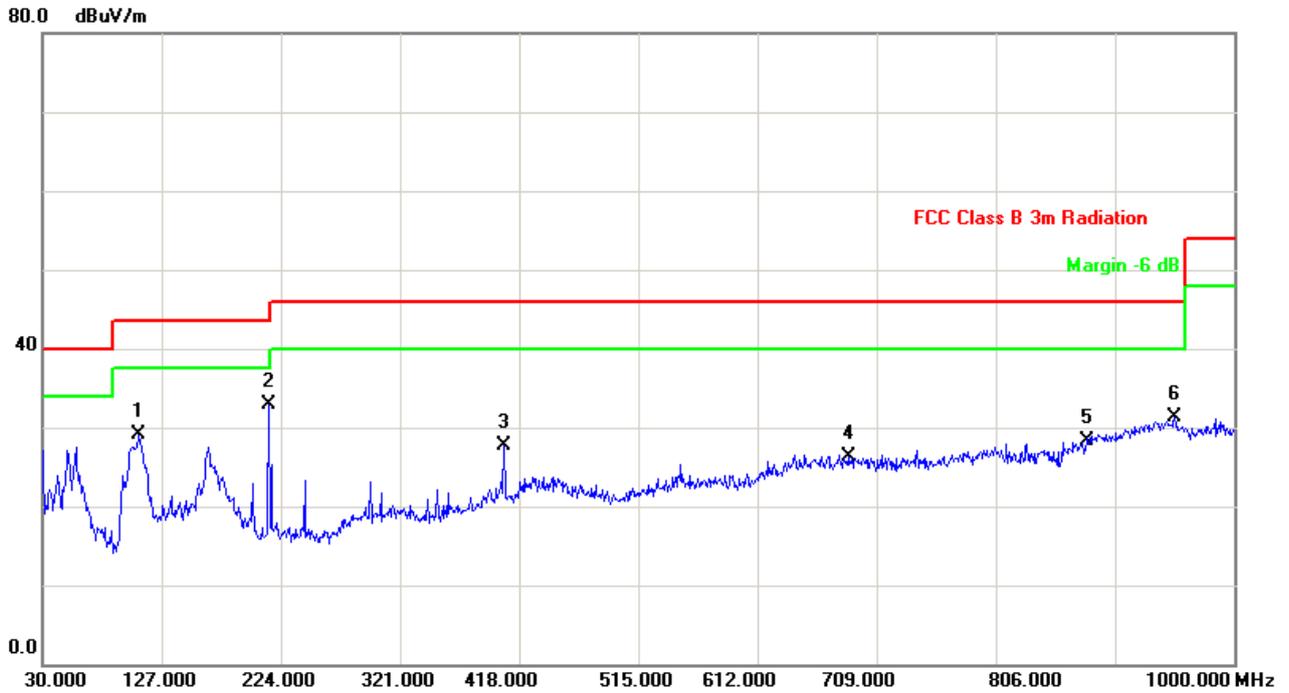
**Part 1: Testing Range of “9 kHz to 30MHz”**

NOTE1: No peak found in the Test Range of “9 kHz to 30MHz”

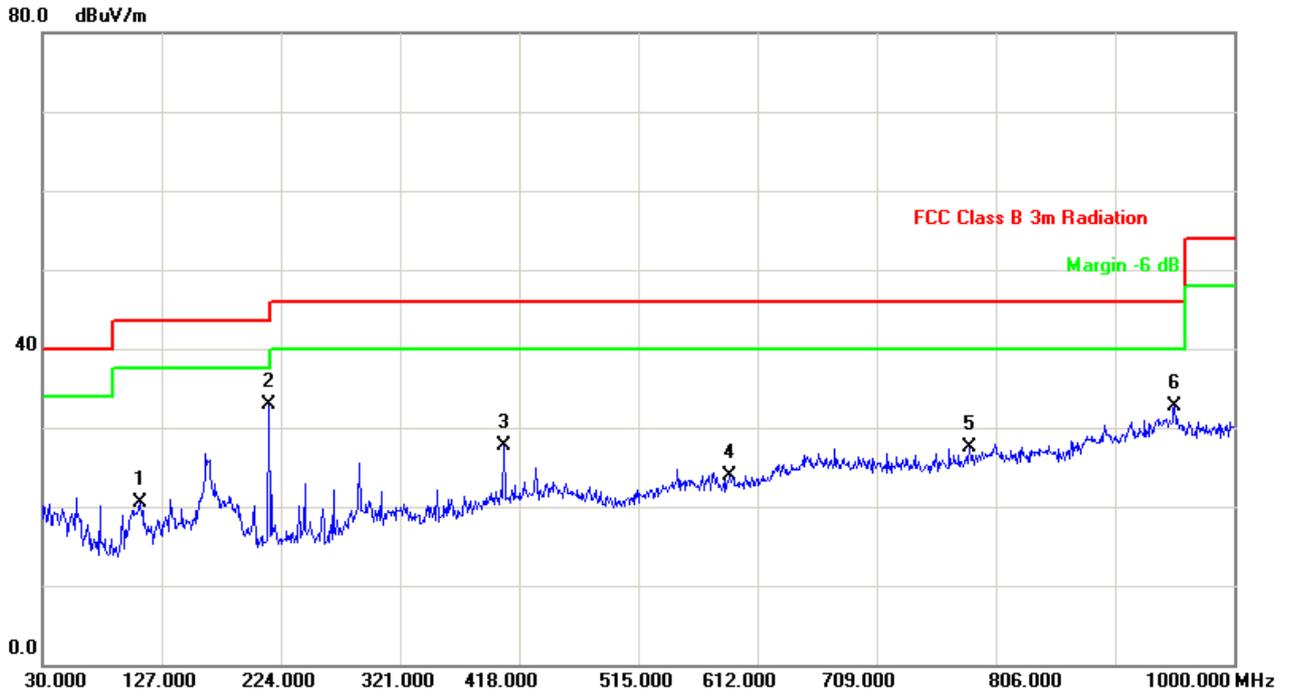
**Part 2: Testing Range of “30 MHz to 1 GHz”**

Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



No.	Mk.	Freq. MHz	Reading Level dBuA	Correct Factor dB	Measure- ment dBuA	Limit dBuA	Margin dB	Plarization
1		108.5700	43.03	-13.92	29.11	43.50	-14.39	VERTICAL
2	*	214.3000	46.50	-13.58	32.92	43.50	-10.58	VERTICAL
3		405.3900	34.86	-7.12	27.74	46.00	-18.26	VERTICAL
4		685.7200	27.78	-1.52	26.26	46.00	-19.74	VERTICAL
5		879.7200	27.33	1.04	28.37	46.00	-17.63	VERTICAL
6		951.5000	28.19	3.07	31.26	46.00	-14.74	VERTICAL



No.	Mk.	Freq. MHz	Reading Level dBuA	Correct Factor dB	Measure- ment dBuA	Limit dBuA	Margin dB	Comment
1		109.5400	34.28	-13.84	20.44	43.50	-23.06	HORIZONTAL
2	*	214.3000	46.41	-13.58	32.83	43.50	-10.67	HORIZONTAL
3		405.3900	34.86	-7.12	27.74	46.00	-18.26	HORIZONTAL
4		589.6900	28.55	-4.64	23.91	46.00	-22.09	HORIZONTAL
5		784.6600	27.80	-0.32	27.48	46.00	-18.52	HORIZONTAL
6		951.5000	29.67	3.07	32.74	46.00	-13.26	HORIZONTAL



**Part 3: Testing Range of “18 GHz to 26.5 GHz”**

NOTE1: No peak found in the Test Range of “18 GHz to 26.5GHz”

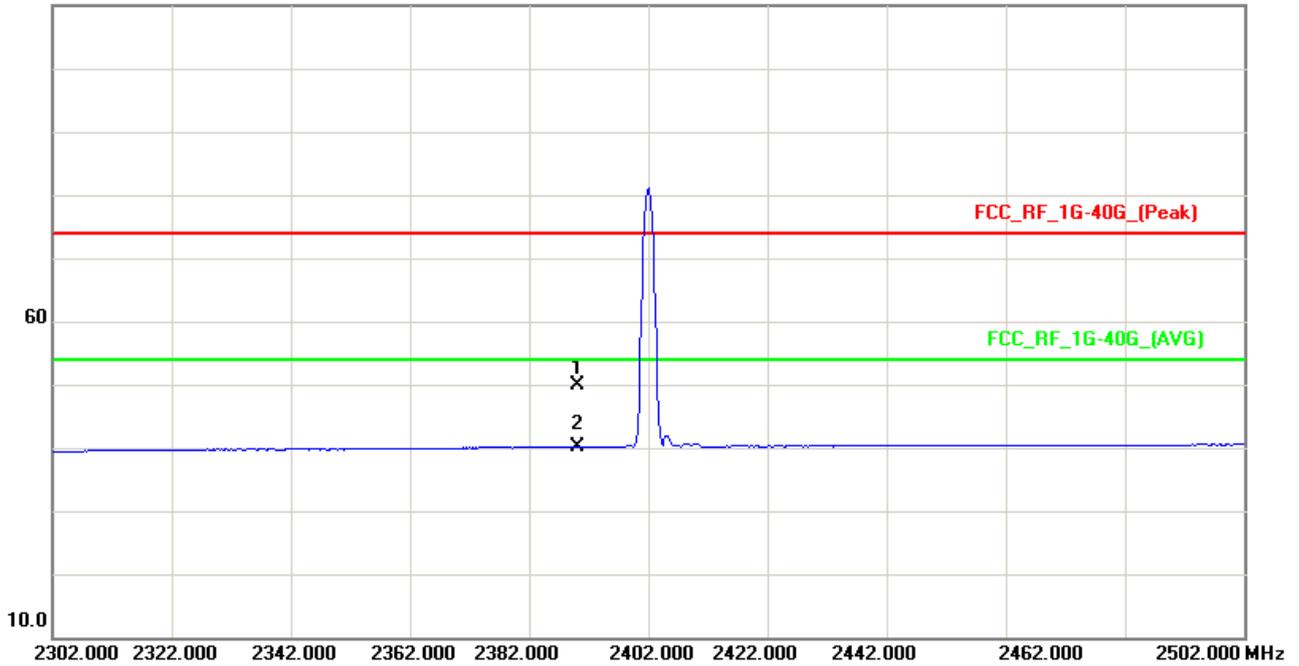
**Part 4: Testing Range of “2.3GHz to 2.5GHz”**

- Note 1: The testing range of “2.3 GHz to 2.5 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.
- Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).
- Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

**Channel 0**

**Vertical**

110.0 dB $\mu$ V/m

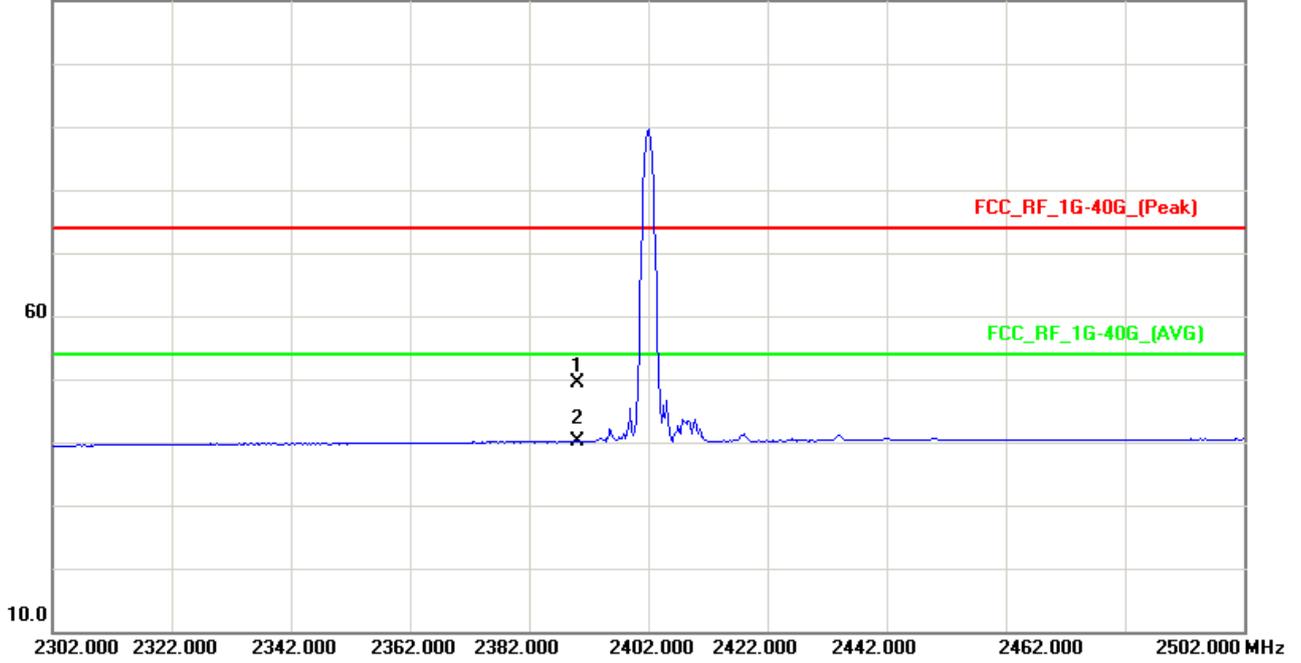


Note: The peak exceeds the limit line is carrier frequency.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Polarization
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2390.000	14.00	35.88	49.88	74.00	-24.12	peak	VERTICAL
2	*	2390.000	4.19	35.88	40.07	54.00	-13.93	AVG	VERTICAL

**Horizontal**

110.0 dBuV/m



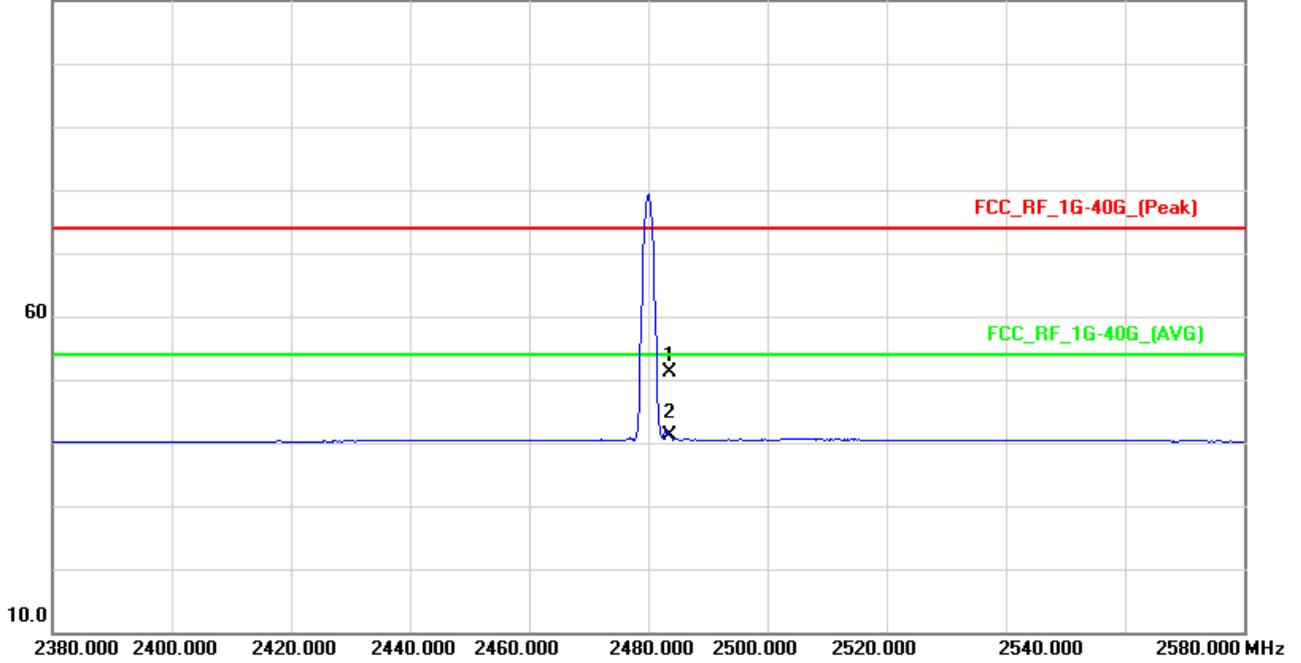
Note: The peak exceeds the limit line is carrier frequency.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Polarization
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2390.000	13.43	35.88	49.31	74.00	-24.69	peak	HORIZONTAL
2	*	2390.000	4.17	35.88	40.05	54.00	-13.95	AVG	HORIZONTAL

**Channel 39**

**Vertical**

110.0 dBuV/m

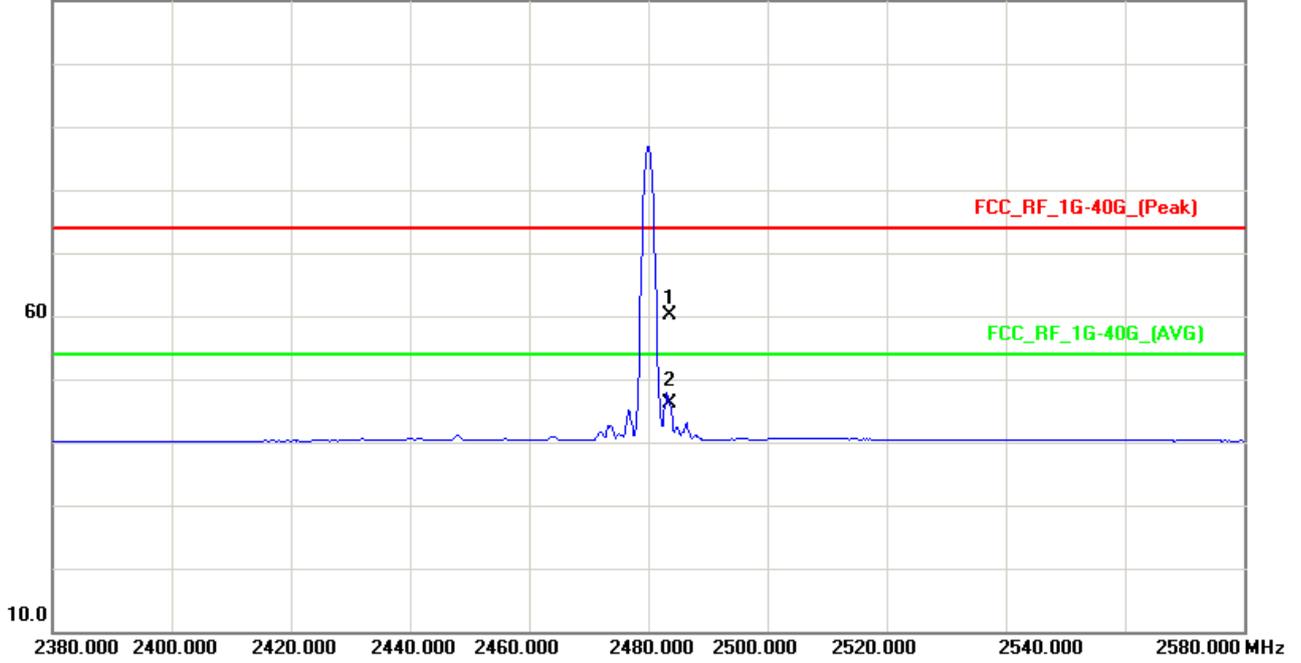


Note: The peak exceeds the limit line is carrier frequency.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Polarization
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2483.500	14.62	36.39	51.01	74.00	-22.99	peak	VERTICAL
2	*	2483.500	4.85	36.39	41.24	54.00	-12.76	AVG	VERTICAL

**Horizontal**

110.0 dBuV/m



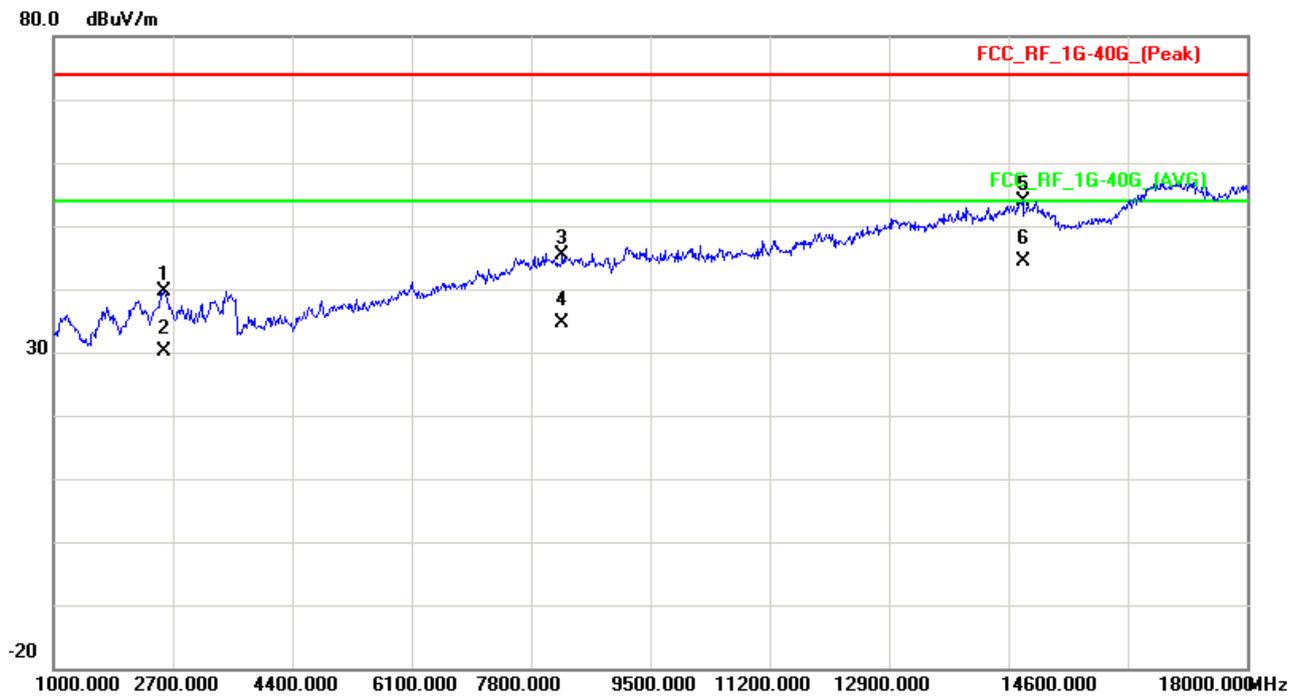
Note: The peak exceeds the limit line is carrier frequency.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Polarization
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2483.500	23.65	36.39	60.04	74.00	-13.96	peak	HORIZONTAL
2	*	2483.500	9.65	36.39	46.04	54.00	-7.96	AVG	HORIZONTAL

**Part 5: Testing Range of “1 GHz to 18 GHz”**

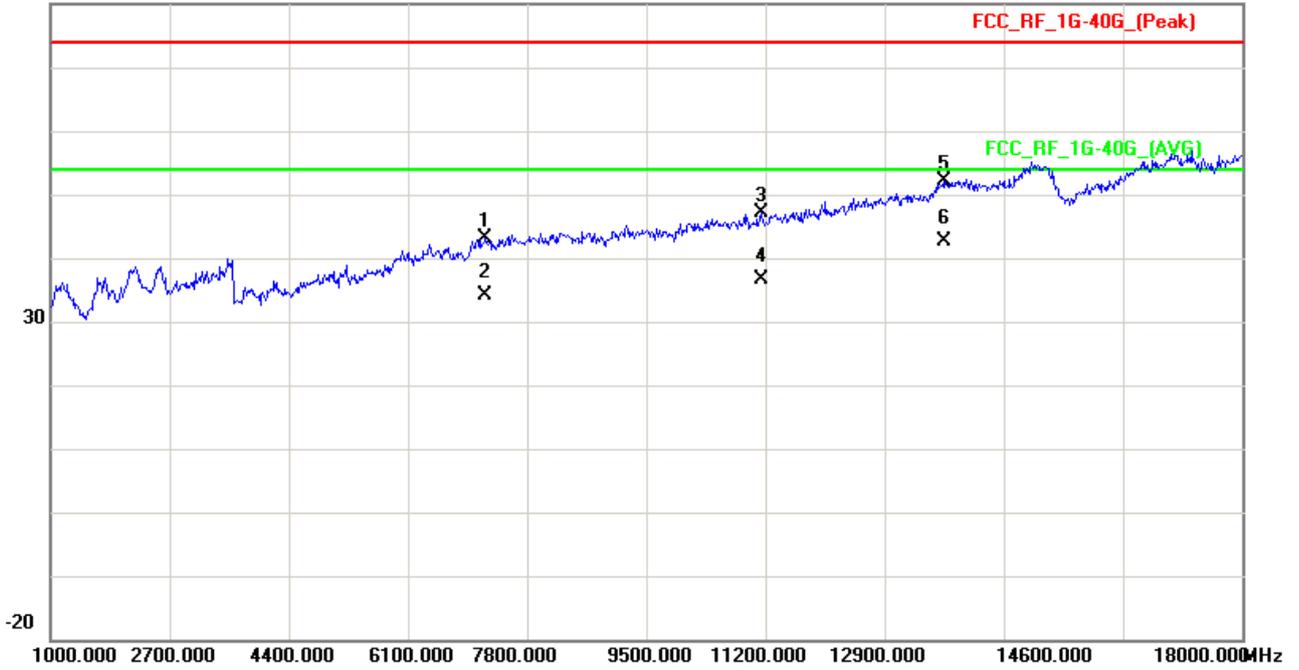
- Note 1: The test results and plot for testing range of “1 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “1 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.
- Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).

**Vertical**



### Horizontal

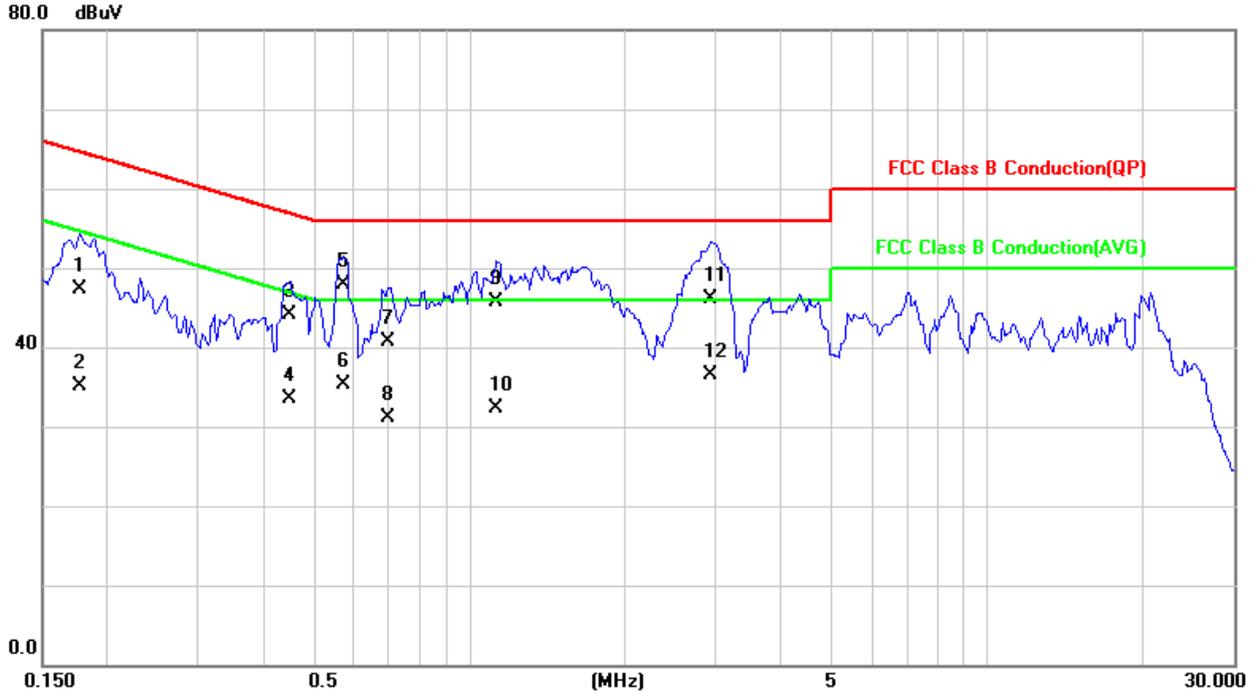
80.0 dBuV/m



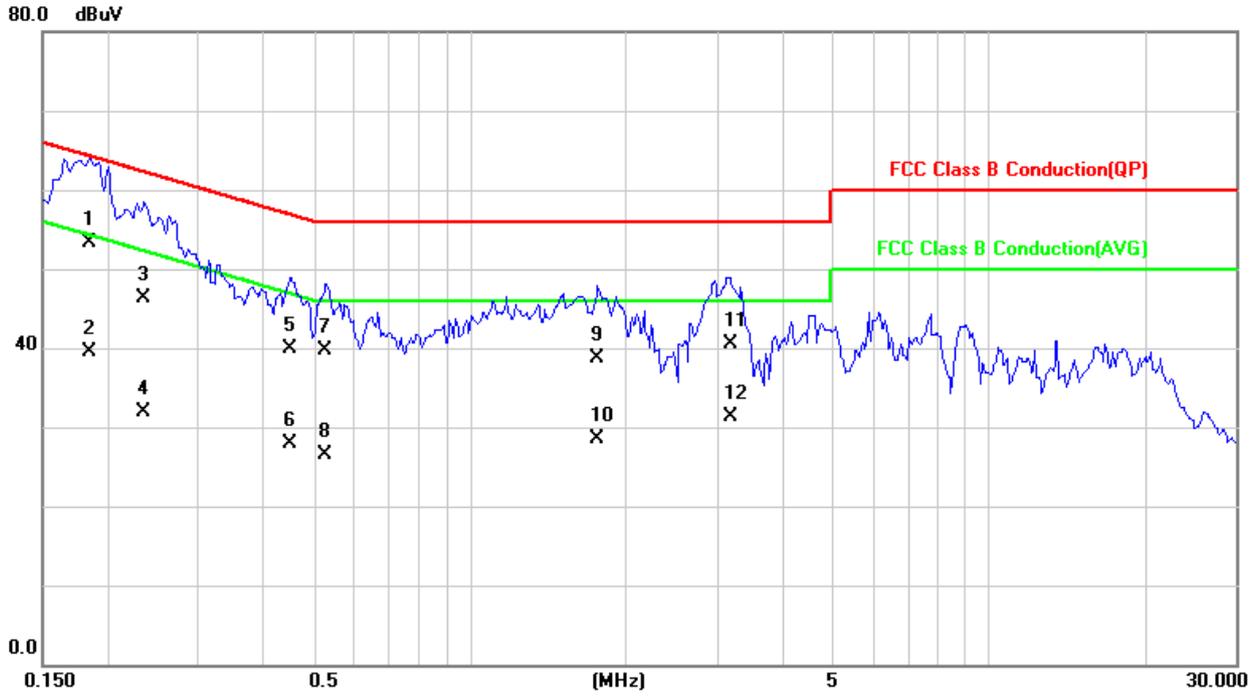
## 8 Appendix I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

### Channel 39



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Line
1	0.1773	37.60	9.69	47.29	64.61	-17.32	QP	L1
2	0.1773	25.50	9.69	35.19	54.61	-19.42	AVG	L1
3	0.4508	34.30	9.82	44.12	56.86	-12.74	QP	L1
4	0.4508	23.70	9.82	33.52	46.86	-13.34	AVG	L1
5	0.5720	38.10	9.84	47.94	56.00	-8.06	QP	L1
6	0.5720	25.50	9.84	35.34	46.00	-10.66	AVG	L1
7	0.7007	30.80	9.90	40.70	56.00	-15.30	QP	L1
8	0.7007	21.20	9.90	31.10	46.00	-14.90	AVG	L1
9	1.1344	35.70	10.01	45.71	56.00	-10.29	QP	L1
10	1.1344	22.20	10.01	32.21	46.00	-13.79	AVG	L1
11	2.9273	36.20	9.83	46.03	56.00	-9.97	QP	L1
12	2.9273	26.70	9.83	36.53	46.00	-9.47	AVG	L1



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Line
1	0.1852	43.60	9.61	53.21	64.25	-11.04	QP	N
2	0.1852	29.90	9.61	39.51	54.25	-14.74	AVG	N
3	0.2360	36.60	9.62	46.22	62.24	-16.02	QP	N
4	0.2360	22.30	9.62	31.92	52.24	-20.32	AVG	N
5	0.4508	30.20	9.64	39.84	56.86	-17.02	QP	N
6	0.4508	18.30	9.64	27.94	46.86	-18.92	AVG	N
7	0.5290	30.10	9.65	39.75	56.00	-16.25	QP	N
8	0.5290	16.90	9.65	26.55	46.00	-19.45	AVG	N
9	1.7672	28.80	9.88	38.68	56.00	-17.32	QP	N
10	1.7672	18.70	9.88	28.58	46.00	-17.42	AVG	N
11	3.1797	30.70	9.83	40.53	56.00	-15.47	QP	N
12	3.1797	21.50	9.83	31.33	46.00	-14.67	AVG	N

END